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THESIS

A HUMAN SYSTEMS INTEGRATION ANALYSIS OF THE ARMY SUICIDE PREVENTION PROGRAM

by

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June 2013

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13. ABSTRACT (maximum 200 words)

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The research team drew conclusions about two of the four research questions. The study determined there were mismatches between the needs of the users and the system resources and concluded the stigma associated with seeking help is a hindrance to help-seeking behaviors. The system mismatches were translated into four system gaps and eight recommendations. The diversity and feedback of the participants was noteworthy and provided vital insight into the suicide issue within the military and the Army's effort to address the problem. Recommendations for future research are: including poor sleep quality as a risk factor for suicide, including self-awareness as a protective factor for suicide, implementing more evidence-based approaches to care, and leveraging lessons learned from college-based suicide prevention.

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A HUMAN SYSTEMS INTEGRATION ANALYSIS OF THE ARMY SUICIDE PREVENTION PROGRAM

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

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LIST OF ACRONYMS AND ABBREVIATIONS

ACE	Ask/Care/Escort
ACER	Army Suicide Event Report
ACS	Army Community Services
AHLTA	Armed Forces Health Longitudinal Technology Application
AR	Army Regulation
ART	Army Resilience Training
ASAP	Army Substance Abuse Program
ASER	Army Suicide Event Report
ASIST	Applied Suicide Intervention Skills Training
ASPP	Army Suicide Prevention Program
ASPPM	Army Suicide Prevention Program Manager
BH	Behavioral Health
CAMS	Collaborative Assessment and Management of Suicidality
CHPC	Community Health Promotion Council
CSF	Comprehensive Soldier Fitness
CSF2	Comprehensive Soldier and Family Fitness
DA	Department of the Army
DCoE	Defense Centers of Excellence
DMDC	Defense Manpower Data Center
DoD	Department of Defense
DoDSER	DoD Suicide Event Report
EPICON	Epidemiological Consultation Team
FAP	Family Advocacy Program
FY	Fiscal Year
G1	Deputy Chief of Staff for Personnel
GAT	Global Assessment Tool
HD	Human Dimension
HFE	Human Factors Engineering
HH	Health Hazards
HHSA	Health and Human Services Agency

HIPAA	Health Insurance Privacy and Accountability Act
HPRR	Health Promotion Risk Reduction
HSI	Human Systems Integration
HTA	Hierarchical Task Analysis
IBH	Inpatient Behavioral Health
IMCOM	Installation Management Command
KSAO	Knowledge, Skills, Abilities, and Other Characteristics
LPI	Life Preservation Index
MACOM	Major Command
MEDCOM	Medical Command
MFLC	Military Family Life Consultants
MHAT	Mental Health Advisory Teams
MRMC	Medical Research & Materiel Command
MRT	Master Resilience Trainer
MTF	Medical Treatment Facility
NAASP	National Action Alliance for Suicide Prevention
NDAA	National Defense Authorization Act
OBH	Outpatient Behavioral Health
OCCH	Office of the Chief of Chaplains
OTSG	Office of the Surgeon General
OV	Operational View
PAM	Pamphlet
PHC	Public Health Command
PTGI	Post-Traumatic Growth Inventory
PTSD	Post-Traumatic Stress Disorder
QPR	Question, Persuade, Refer
SE	Systems Engineering
SP	Suicide Prevention
SPPM	Suicide Prevention Program Manager
SPRRC	SP and Risk Reduction Council
SPTF	Suicide Prevention Task Force
SS	System Safety

SSF	Suicide Status Form
SSv	Soldier Survivability
STARRS	Study to Assess Risk and Resilience in Soldiers
T2	The National Center for Telehealth and Technology
TAU	treatment as usual
TFPS	Task Force on the Prevention of Suicide by Members of the Armed Forces
TIS	Time in Service
TRADOC	Training and Doctrine Command
TRIAP	TRICARE Assistance Program
TSG	The Surgeon General
TTAM	Tools, Techniques, Approaches, and Methods
VA	Veterans Affairs
WRAIR	Walter Reed Army Institute of Research
WWP	Wounded Warrior Program

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EXECUTIVE SUMMARY

This research viewed the Army Suicide Prevention Program (ASPP) as a complex system and analyzed its effectiveness with respect to Human Systems Integration (HSI). The focus of this effort was to gain feedback from the end users' perspective. The study presents overall system findings, draws conclusions about the system gaps, and makes recommendations for improving the program. The four research questions were: 1) Is there is a mismatch between the resources offered by the ASPP system and the needs of the soldiers who use the system? 2) Does the assessment of the ASPP system vary between those who have previous experience with suicide and those who do not? 3) Is there a difference in system assessments between soldiers of different genders and rank categories? 4) Does the stigma associated with help-seeking behavior contribute to risk-taking behavior?

This study combined a retrospective analysis of previous years' suicide statistics and semi-structured interviews with current system users assigned to an Army division. Installation and unit leaders provided background information on the unit's Suicide Prevention (SP) program and 24 soldiers participated in the interviews. The analysis conducted was qualitative, using the comparison of the frequency and distribution of interview and survey answers based on the participant demographic information.

The research team could only draw conclusions about the first and fourth research questions. First, the study determined there were mismatches between the needs of the users and the system resources, which were translated into four system gaps: 1) Training focus and format imbalances, 2) Buddy care limitations, 3) Persistence of the stigma associated with seeking help, and 4) Users' limited awareness of SP resources available. Each gap was further analyzed to determine the applicability of each HSI domain defined by the Army MANPRINT Directorate. All HSI domains were applicable to the first and fourth gaps, while four domains were applicable to the second and third gaps. Second, there was overwhelming support for the prediction that the stigma associated with seeking help for suicide impedes system use. Due to the small sample size and

answer distribution, this study did not find a significant difference between the assessments of those with different ranks, genders, and experiences with suicide.

Participants translated their experiences with the ASPP system into 8 recommendations for improvements: 1) Increase focus on protective factors and engaged leadership during training and strategic communications, 2) Reinforce the Army team concept, 3) Decrease stigma by increasing confidentiality and improving follow-up, 4) Improve strategic communications on resources available and steps to take when providing assistance, 5) Improve collaboration on and effectiveness of prevention efforts, 6) Eliminate a mandated Stand Down day, 7) Couple SP with Resilience training when appropriate, and 8) Make ASIST and MRT certification more effective and relevant. Three necessities were reiterated at all levels throughout this analysis as key to the success of the system: engaged leadership reinforced with confidentiality and trust, increased protective factors using self- and buddy care, and an operating environment that relies on the aforementioned to eliminate the perpetuation of a stigma. The installation and unit leaders interviewed strive to be innovative in their approach to get ahead of the suicide issue in their formations. Participants generally made positive assessments of the attention the Army has given to SP.

With the goal of HSI being optimization of total system performance, this study noted how improvements in feedback, collaboration, and system interfaces could bridge the gaps between the users and the system. The completion of an Army SP needs assessment, continued discussion on the military perspective of suicide and SP, and improvements to the ASPP Website were additional recommendations. It goes without saying that a larger sample size would be needed for a more quantitative analysis, however the value of this qualitative approach cannot be minimized. The diversity of the feedback given during the interviews was noteworthy. Ten participants shared their experiences with suicidal soldiers, further reiterating the timeliness of this research. Recommendations for future research are: including poor sleep quality as a risk factor for suicide, including self-awareness as a protective factor for suicide, implementing evidence-based approaches to care, and learning from college-based SP.

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A special thank you for the support of my extended family, the assistance of those I have served with in the past, the perspective of friends currently deployed, and the feedback from my fellow Army and HSI classmates. I would like to also thank Dr. Nita Shattuck, Dr. Kip Smith, and Dr. Ronald Fricker for their additional help in understanding complex ideas associated with this research. I appreciate the assistance of the Army Suicide Prevention Office in supporting this effort, allowing me the opportunity to gain background knowledge on the program, and providing vital points of contact. The NPS Office of Human Research Protection was a vital source of guidance and assistance navigating through the Human Subjects Research approval process. Most importantly, this study would not have been possible without the support of the installation/unit leadership and the participation of the volunteers referenced in this work.

I dedicate my work first to the strength and memories of soldiers I have served with who struggled with suicide during my time with the 4th Brigade Combat Team, 1st Cavalry Division, Fort Bliss, TX and Headquarters and Headquarters Company, United States Army Garrison, Fort Myer, VA. Finally, I will forever be indebted to the teaching and mentorship of the late U.S. Navy Commander (Retired) and graduate of the Naval Postgraduate School, Stephen T. Van Brocklin, without whom I may not have considered the military as a profession.

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I. INTRODUCTION

A. OBJECTIVES

This research views the Army Suicide Prevention Program (ASPP) as a complex system and analyzes its effectiveness from the users' perspective. The study presents findings with respect to Human Systems Integration (HSI), draws conclusions about the gaps within the ASPP, and makes recommendations for improving the program.

Continuous efforts to drive down the number of completed suicides in the military must include enhancing the total performance of the ASPP system. As a part of this effort, this thesis assesses what works within the program and what does not, from the perspective of system users. When system structure does not maximize human-system interaction, recommendations are made on how to customize the program to better fit the needs of the users.

B. PROBLEM STATEMENT

Suicides in the Army showed a record increase in 2008. In that year, the Department of Defense (DoD) reported a 50 percent increase in active duty suicides from 10.3 per 100,000 in 2001 to 15.8 for every 100,000 (James, 2012). In Figure 1, Black, Gallaway, Bell, and Ritchie (2011) demonstrate the Army's suicide rate went from declining from 1990 to 2004, to showing increases during the outsets of Operations Enduring Freedom and Iraqi Freedom, to exceeding the rates adjusted for age and race in the civilian population in 2008. These numbers have since continued to climb and have raised our nation's awareness of the prevalence of suicide in the military.

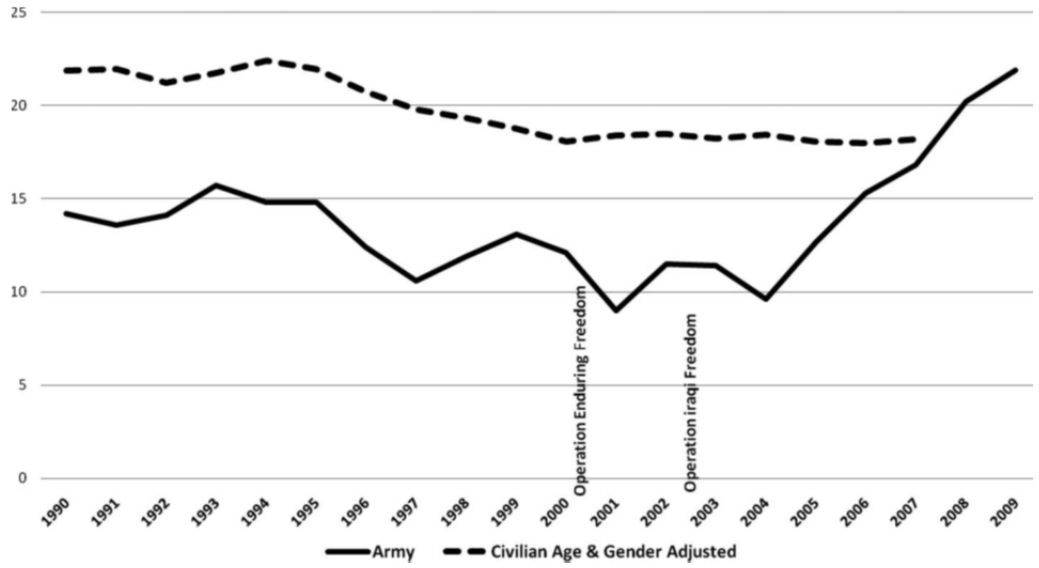

Figure 1. U.S. Suicide Rates from 1990—2009: Army versus Civilian (Adjusted for Age and Gender) (From Black et al., 2011)

The Army has devoted massive resources to analyzing the medical and psychological data gathered from soldiers during the last decade of continuous conflict. Appendix C provides some of the statistics on suicide risk factors drawn from this type of research on Soldiers from 2001—2009, as presented by Black et al. This type of analysis has helped provide a better understanding of how combat stress has impacted the human dimension of the force. Suicidality exists in a "multifactorial nature, which has required the adoption of a compound approach to intervention, combining population-based screening and education with more targeted efforts for those at above-baseline risk" (Bagley, Munjas, & Shekelle, 2010, p. 258). The ASPP system incorporates military psychology concepts into the design and delivery of resources that aim to decrease suicidal behavior. Figure 2 presents the public health and preventive medicine view of suicide prevention (SP). Ultimately, as evident from this model, suicide is a readiness issue.

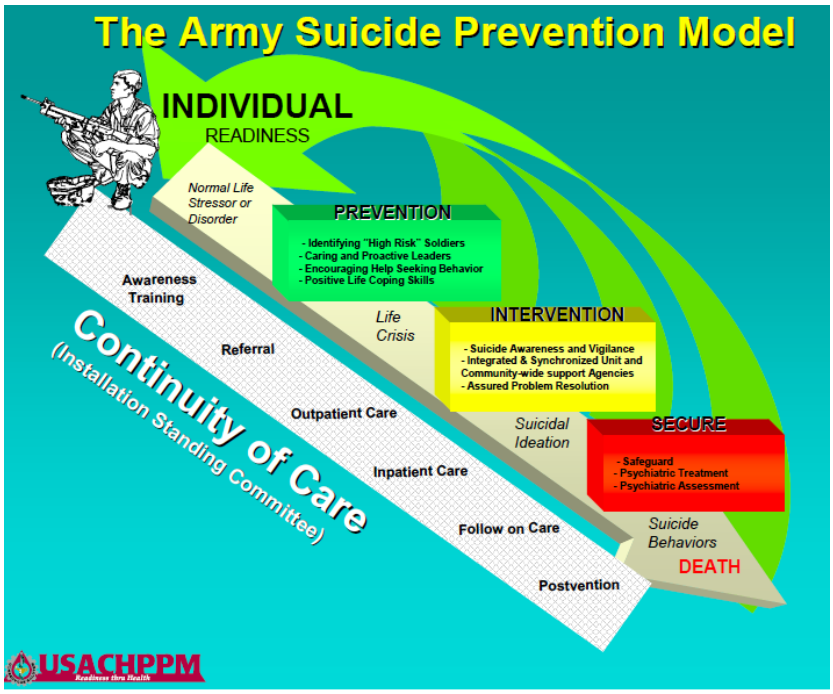

Figure 2. The Army Suicide Prevention Model (From American Association of Suicidology & U.S. Army Center for Health Promotion and Preventive Medicine, n.d., p. 33)

The Army produced two reports with the results of ongoing studies on Health Promotion/Risk Reduction/Suicide Prevention (HP/RR/SP). In the 2010 report, more commonly known as the Army Red Book, Chiarelli noted, "We have a tremendous influence on increasing help-seeking behavior, reducing high risk behavior and, ultimately, on reducing our unacceptable casualty rates" (U.S. Army, 2009, p. ii). The Army Red Book was the first comprehensive review of the condition of health and discipline and their interaction within the Army. The Army Gold Book, a follow-up to this report, was produced in 2012. Both reports reference the Army Study to Assess Risk and Resilience in Servicemembers (STARRS) and the Event Cycle and Care Continuum.

The purpose of Army STARRS is to "identify modifiable risk and protective factors and moderators of suicidal behavior to inform the Army's ongoing efforts to prevent suicide and improve soldiers' overall psychological health and functioning" (U.S. Army, 2009, p. 229). The study has collected detailed information on psychological and physical health, such as the information categories shown in Figure 3. It examines

exposure to adverse events, attitudes, social support, leadership and unit climate, training and knowledge, employment and economic status, family history and other potentially relevant data from over 300,000 soldiers (U.S. Army, 2009, pp. 229–230).

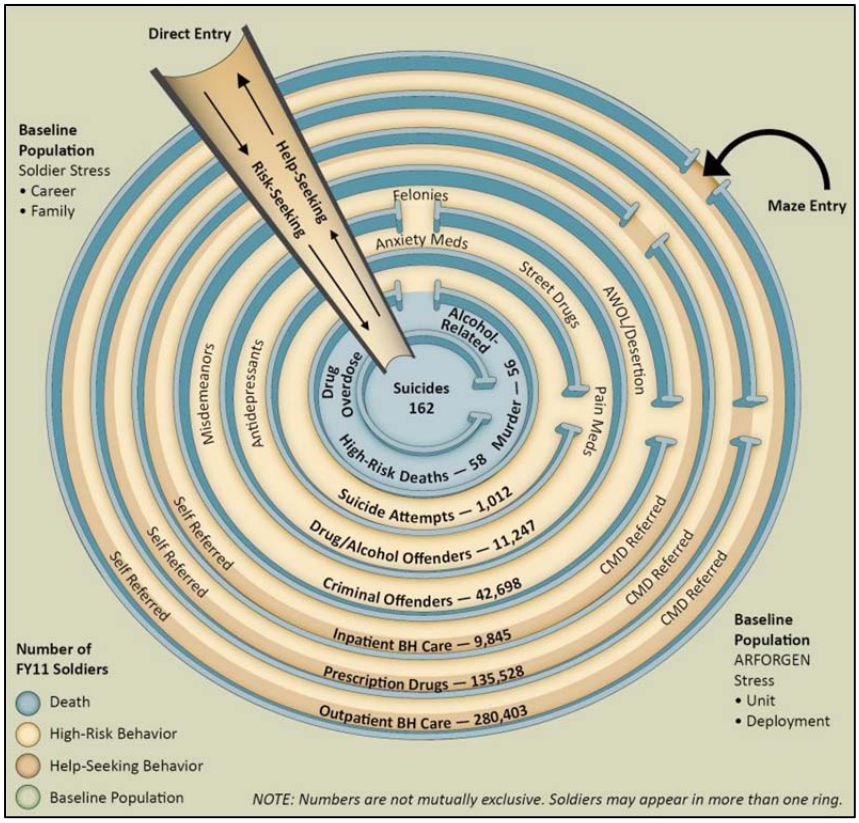

Figure 3. Health and Disciplinary Maze Model for the Army population at risk (From U.S. Army, 2012, p. 6)

The Event Cycle and Care Continuum in Figure 4 describes how Army leaders respond to at-risk and high-risk soldiers. There are two parts to this model: the Event Cycle, the sequence of events that affects the soldiers; and, the Care Continuum, the institution's response to each event, such as increased surveillance and detection of indicators associated with a potential or actual event (U.S. Army, 2012).

Figure 4. The Event Cycle and Care Continuum (From U.S. Army, 2012, p. 7)

Combined, the risk demographics identified by STARRS and the processes in this model represent the two sides of every risk reduction effort—the soldiers as the lowest level users and the leaders who facilitate help-seeking behavior from the top down.

ASPP resources should bridge the gap between these two sides. Unfortunately, "suicide does not fit cleanly into any of the groupings of problems for which prevention models have been developed" (Silverman & Felner, 1995, p. 2). Although progress has been made in recent years, this still remains particularly true within military populations. Silverman and Felner (1995) arrived at four basic questions for a systematic framework to organize analytical thinking about SP:

- What do we mean by the concept of "prevention" when applied to suicide?
- Who are the target groups of suicide prevention versus, for example, intervention?
- What and where is the focus of suicide intervention?
- What are the goals of SP programs? (p. 2)

In measuring system effectiveness, analysts recognize there are independent variables that, when manipulated, influence dependent variables. In most business processes for example, system performance influences the cost of the system. The simplest cost-effectiveness relationships can be represented linearly. However, more complex systems require a multivariate approach. Consequently, a linear approach to SP with clear factors that predict suicide behavior "is simply not well suited to the reduction of the incidence of suicide" (Silverman & Felner, 1995, p. 3).

The ASPP, as with other SP programs, includes suicide reduction efforts before, during, and after suicide events have occurred. The background research on prevention strategies will cover SP efforts that can include: 1) reduction of levels of risk or increasing levels of protective factors, 2) reduction of the incidence rates of personal vulnerabilities or the enhancement of personal competencies and strengths, and 3)

alteration of risk and protective factors to produce resilience in the face of serious challenge (Silverman & Felner, 1995). The value of identifying gaps in these strategies and adjusting the program to fit these mismatches is the key to this research. Senior Army leadership has recognized the need for a multi-faceted approach to SP and behavioral health (BH) services and has implemented many programs to address this need.

One of the main problems in SP is that while the absolute number of suicides in a population is cumulatively quite large, the risk of suicide for any given individual is relatively small (Bagley et al., 2010). A particular aspect of SP development for military personnel that has gained particular attention in recent years is the amount of heightened stress anticipated during times of transition, during which time identifying individuals at higher risk and implementing treatment engagement protocols could be a means of enhancing SP efforts (Brenner & Barnes, 2012). Although major challenges exist in trying to predict who may fall victim to suicidal behavior, resource providers have begun to focus on target areas and events that have indicators for increased stressors and could lead to suicide.

In the 2011 U.S. Congressional hearing on military SP programs, the Army Deputy Chief of Staff for Personnel (G-1) testified, "In FY 2010, 257,537 soldiers accessed outpatient BH care (ranging from screening to therapy) and 9,392 soldiers received inpatient BH care. This [was] an increase from 216,222 and 9,201 in the previous year" (*The current status of suicide prevention programs in the military*, 2011, p. 47). However, there were 147 confirmed and 13 suspected Army suicides within the same year (National Center for Telehealth and Technology (T2), 2010). Despite increases in BH service usage during this time, suicide numbers still showed evidence of an obvious problem.

C. RESEARCH QUESTIONS

Understanding where the mismatches are in soldiers using SP resources rests heavily on understanding how they conduct internal risk assessments, determine stress coping strategies, and decide to seek (or not seek) help. This thesis conducts a bottom-up

analysis of the ASPP system, identifies inconsistencies between the system and its users, and provides insights into how at least some soldiers recover from suicidal ideations through the use of ASPP resources.

The research question at the root of this analysis is whether there is a mismatch between the resources offered by the ASPP system and the needs of the soldiers who use the system. The answer to this question will reveal whether there is a mismatch due to the system design. Additional research questions include:

- Does the assessment of ASPP system vary between those who have previous experience with suicide and those who do not?
- Is there a difference in system assessments between soldiers of different genders and rank categories?
- Does the stigma associated with help-seeking behavior contribute to risk-taking behavior?

D. THE SYSTEMS ENGINEERING PERSPECTIVE

A system is a set of interrelated components functioning together toward some common objective or purpose. It can be associated with all kinds of products, structures, and services (Blanchard & Fabrycky, 2011). In the systems design phase, system engineers must conduct an analysis of the stakeholders involved in the system, define the system requirements based on stakeholder needs, and decompose tasks that the system will accomplish to meet these requirements.

The systems engineering (SE) product life cycle can be divided into two phases: the acquisition phase and the utilization phase. The acquisition phase is composed of conceptual/preliminary design, detail design and development, and production/ construction. The utilization phase includes product implementation, support, phase-out, and disposal (Blanchard & Fabrycky, 2011).

Analysis of a system once it has been implemented is important to ensuring the effectiveness of design parameters. For this thesis, the focus of the SE perspective was assessing the product implementation and support, including system sustainment. System sustainment includes, among other topics, manpower, personnel capability, training, habitability, survivability, environment, safety, occupational health, protection of critical

program information, and information technology (U.S. Army MANPRINT Directorate, 2011b). During sustainment, system operators, trainers, and maintainers are able to provide feedback on what works well and what does not.

Fundamentally, "systems thinking and the systems viewpoint looks at a system from the top down rather than from the bottom up" (Blanchard & Fabrycky, 2011, p. 5). However, HSI incorporates the bottom-up perspective into the SE process. Top-down viewpoints include those from the perspective of upper-level stakeholders, while bottom-up is from the user standpoint. The top-down systems approach must be complemented by the bottom-up HSI view when determining system effectiveness.

E. HUMAN SYSTEMS INTEGRATION

The analytical framework used for this research is based on HSI and SE. Integrating human considerations into system design is the ultimate goal of HSI. The Army G-1 oversees Army HSI under the MANPRINT Program. The program's mission is to achieve system design objectives that "ensure that the needs of the Soldier and unit are considered throughout the system acquisition process and life cycle by incorporating related considerations from the seven key design areas: Manpower, Personnel Capabilities, Training, Human Factors Engineering, Safety, Health Hazards, and Soldier Survivability" (U.S. Army MANPRINT Directorate, 2011b, MANPRINT Directorate Programs section, para. 1). HSI practitioners determine how to best integrate considerations for each domain into system design in order to optimize total system performance.

The MANPRINT objectives are as follows:

> 1) Optimize both the quantity and quality of the personnel needed for systems; 2) Design systems that are easily useable by soldiers, safe to operate, cause no unnecessary health problems, and maximize Soldier survivability; and 3) Ensure acceptable trade-offs are made among performance, design, and Soldier capabilities and limits. (U.S. Army MANPRINT Directorate, 2011a, p. 1)

Each domain used to achieve these objectives is described in further detail below:

- **Manpower:** Manpower addresses the number of military and civilian personnel required and potentially available to operate, maintain, sustain, and provide training for systems.
- **Personnel Capabilities:** Personnel addresses the cognitive and physical characteristics and capabilities required to be able to train for, operate, maintain, and sustain materiel and information systems. Personnel capabilities are normally reflected as Knowledge, Skills, Abilities, and Other characteristics (KSAOs).
- **Training:** Training is defined as the instruction, education, on-the-job, or self-development training required providing all personnel and units with essential job skills, and knowledge. Training is required to bridge the gap between the target audience's existing level of knowledge and that required to effectively operate, deploy/employ, maintain and support the system.
- **Human Factors Engineering (HFE):** The goal of HFE is to maximize the ability of an individual or crew to operate and maintain a system at required levels by eliminating design-induced difficulty and error. Human Factors engineers work with systems engineers to design and evaluate human-system interfaces to ensure they are compatible with the capabilities and limitations of the potential user population.
- **System Safety (SS):** System Safety is the design features and operating characteristics of a system that serve to minimize the potential for human or machine errors/failures that cause injurious accidents.
- **Health Hazards (HH):** Health Hazards addresses the design features and operating characteristics of a system that create significant risks of bodily injury or death. Along with safety hazards, an assessment of health hazards is necessary to determine risk reduction or mitigation. Health hazards include those areas that could cause death, injury, illness, disability, or a reduction in job performance.
- **Soldier Survivability (SSv):** Soldier survivability addresses the characteristics of a system that can reduce fratricide, detectability, and probability of being attacked, as well as minimize system damage, soldier injury, and cognitive and physical fatigue. It was added to focus attention on those aspects of the total system that can minimize the loss of friendly troops' lives. (U.S. Army MANPRINT Directorate, 2005, p. 2—5)

F. THESIS ORGANIZATION

The Chapters following are the literature review, method, results, and conclusion. The literature review covers the SE and HSI concepts, which provides the foundation of this analysis. The Chapter also presents the history and structure of the ASPP system, an

overview of the ASPP system design process, HSI applicability, and the ASPP system components. In laying out these topics, we will be able to see how this research will help identify mismatches in the ASPP system.

The initial system analysis facilitated the development of the system's operational view (OV) model, which captures the roles, objectives, and tasks within the Prevention activities of the system. The two Chapters covering the methods explain the two-pronged approach of conducting a retrospective analysis of suicides events in previous years, as well a bottom-up analysis of the ASPP system through interviews with soldiers. The analysis of results and recommendations will describe the gaps discovered and recommend adjustments to the program accordingly.

II. LITERATURE REVIEW

A. BACKGROUND

Given the rise and persistence of actual and attempted suicides in the Army, much discussion has focused on providing the right balance of training, surveillance, and services for soldiers in order to alleviate suicidal tendencies. This literature review will cover the history of suicide in the Army and the development of the ASPP system; the HSI concepts used in this analysis; the system inputs, processes, and outputs; and the strategies for effective SP program design recommended by current research. These sections lay the foundation for the development of the ASPP system OV model.

Suicide is now the tenth leading cause of death in the United States (Caine, 2012). Although many theories exist for what causes suicide, an accepted view is found in the combination of two key factors: an underlying risk and capacity for suicide and psychological stress or loss. Suicidal behavior resulting from the combination of these two factors present themselves in the form of suicidal events, including suicidal ideations or thoughts, suicide planning and attempts, and suicide completions (Lineberry & O'Connor, 2012). A person is more likely to die by suicide if he or she has attempted suicide in the past (Lineberry & O'Connor, 2012). The majority of current research into Army suicide numbers focuses on completed suicides, but here we will also address ideations and attempts.

1. The Need for the Suicide Discussion

The ASPP began in 1984 and in 2001 the Army G-1, the Office of the Surgeon General (OTSG), and the Office of the Chief of Chaplains (OCCH) completed a review of the program, concluding the program was "basically sound" but needed increased emphasis in leadership involvement. The result of this effort was the initial refinement of the program's five major strategies, which will be covered in the next section. The years following saw the inclusion of the Applied Suicide Intervention Skills Training (ASIST) and Question, Persuade, Refer (QPR) workshops as additional training resources (Department of Defense Task Force on the Prevention of Suicide by Members of the

Armed Forces (TFPS), 2010). Battlemind Training, the predecessor to Resilience Training, was implemented in 2006 to help soldiers meet the "mental challenges of training, operations, combat, and transitioning home" (TFPS, 2010, p. 18).

From 1985 to 2005, the Army's active duty suicide rate was between 10–15 suicides per 100,000 persons per year, which was below the age- and sex-adjusted rate in the civilian population (Cersovsky, 2011). However, this statistic changed in 2008, when the DoD reported a 50 percent increase in completed suicides among the active duty military population (James, 2012). From 2003 to 2008, the rate of Army psychiatric hospitalizations almost doubled. Lineberry and O'Connor (2012) note:

> There seems to be a gap in terms of service members receiving outpatient clinical care for psychiatric issues, because only 23 percent to 40 percent of those meeting the criteria for a mental disorder on military post-deployment screening sought care. The underuse of clinical services may be related to concerns of stigma against personnel seeking help and treatment. Notably, service members who screen positive for a mental disorder have been shown to be twice as likely to report stigmatizations as a possible barrier to seeking clinical care compared with those not screening positive. (pp. 874—875)

The Army stood up the Comprehensive Soldier Fitness (CSF) Directorate in October 2008 to improve Soldier resilience in emotional, social, spiritual, family, and physical areas; the Army SP Task Force was also established in March 2009 to address rising suicide rates (TFPS, 2010). Despite its relation to the SP continuum, all CSF efforts are explicitly separate from the ASPP. In 2009, mental disorders were the highest diagnostic category for hospitalizations among U.S. active duty military members, reiterating the need for effective programs to address BH and public health issues (Cersovsky, 2011). The DoD established the TFPS in August 2009 based on a directive in the Fiscal Year (FY) 2009 National Defense Authorization Act (NDAA) (TFPS, 2010).

As combat operations decreased in Iraq, the number of suicides in the Army continued to climb, eclipsing the number of combat deaths in 2012. Clifton reports "an average of one military suicide occurred each day in the first six months of 2012, the fastest pace in the past ten years" (Clifton, 2012, para. 1). Figure 5 shows the number of suicides by service through June in each of the last five years.

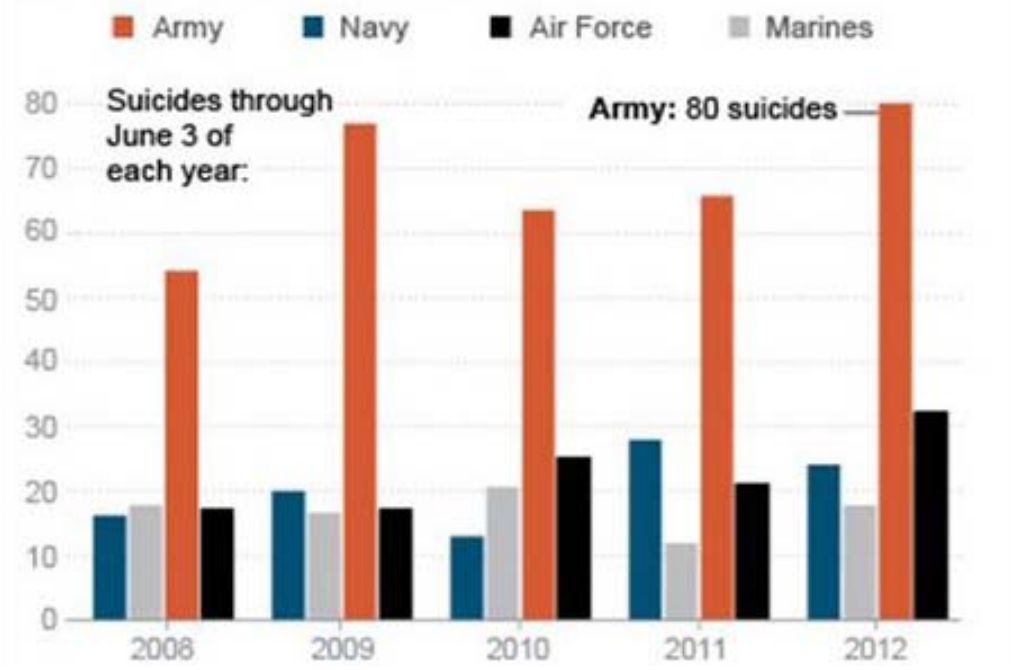

Figure 5. Number of Military Suicides Escalating—Suicides in the U.S. Military have risen significantly since America began a decade of war (From Clifton, 2012, para. 2).

The number of suicides in the Army is significantly higher than in the other services. Despite the depth and breadth of risk reduction resources available, some Servicemembers seem to be averse to seeking professional help. Further proving the tragic nature of current suicide statistics, a January 2013 report by the Associated Press announced the record "349 suicides among active-duty troops last year were up from 301 the year before and exceeded the Pentagon's own internal projection of 325" (Burns, 2013, para. 3). Because monthly suicide statistics include only confirmed suicides, we expect the final number of suicides in 2012 were even higher, once all investigations were complete.

Over the last 10 years, epidemiological consultation teams (EPICONs) have conducted reviews at Army bases that have experienced high suicide or homicide rates. Mental Health Advisory Teams (MHATs), led by Army researchers from the Walter Reed Army Institute of Research (WRAIR), have administered surveys in Iraq and Afghanistan roughly once a year (Ritchie, 2012). In response to suicide rate hikes over the last few years, both the DoD and the Army task forces aimed to gain a "better

understanding [of] the precipitants of military suicide—especially those that may be unique to this particular population" (Ritchie, 2012, p. 2). Two trends drawn from these study efforts may prove surprising to some, given the stressful nature of military deployment life.

First, the data did not support the assumption that multiple deployments were linked to an increased risk of suicide. Instead, "79 percent of the suicides recorded by the Army in fiscal year 2009 were soldiers who had completed only a single deployment or had not deployed at all" (Ritchie, 2012, p. 5). Furthermore, over the last seven years, about one-third of the soldiers who commit suicide have never deployed (Ritchie, 2012).

Second, Ritchie (2012) concludes a unit's deployment history, rather than the individual's deployment history, seemed to be a greater contributor to suicide risk. Army installations each have characteristics unique to the type of units based there and the geographical locations in which they are found. The data gathered dismisses the simple assumption made both within and outside of the military that suicidal soldiers are responding primarily to the stress of deployments. The fact that this assumption proves untrue adds more attention to a problem that has continued to get worse over the years. Determining the actual contributors to soldiers' stress and their pre-existing conditions is necessary to properly designing the system. In the overview of the ASPP system, we explore how the Army is furthering efforts to determine and mitigate suicide causal factors.

2. Applicability of HSI to ASPP Analysis

The performance of the ASPP system specifically depends on use of the system by soldiers, families, and leaders in order to decrease suicides. This thesis assessed the HSI considerations on the system design through interviews with system users and analysis of interview results using various techniques. Soldier Survivability is the primary HSI domain focus for this research. Safety, Manpower, Personnel, Training, Health Hazards, and Human Factors Engineering are secondary focus areas. Maximizing

training efforts, personnel qualifications, and safety procedures when dealing with BH issues can ensure Soldier Survivability. Each domain's applicability to the ASPP analysis is as follows:

- **Soldier Survivability:** Suicide has major implications for soldier survivability. Though suicide is a personal choice that some choose to make, being able to recognize suicidal ideations and assist an individual in receiving help will increase survivability in terms of suicide.
- **Safety:** The availability and continuous use of all SP resources is vital to maximizing the safety of all soldiers. The ability of a fellow soldier or leader to point a Soldier in the right direction for help is an indicator of a unit's preparedness.
- **Manpower/Personnel/Training:** The selection criteria for trained unit level gatekeepers, such as Master Resilience Trainers, and the amount and method of training ensure the right people are assigned to positions that directly facilitate the ASPP. The use of an effective needs assessment process and a Target Audience Description should be encouraged and reviewed regularly. The type of resources used may be related to the abilities of the personnel affected and the number of resources available is directly related to manpower levels. Effective training must include these considerations.
- **Health Hazards:** Many of the risk factors associated with suicide are directly related to health matters. Often the particular focus on BH issues can overshadow the influence of medical and physiological issues. When health hazards go unrecognized or untreated over time, they can put individuals into extremely high states of stress. By informing users and management of these health hazards we can ensure their identification and minimization is a part of daily organizational processes.
- **Human Factors Engineering:** The myriad of resources available can be divided into in-person assistance, online assistance, and telephonic aid. The manner in which these resources are presented is primarily through the ASPP Website. In its current state, the site presents a lot of information with minimal focus on Human Computer Interaction considerations. The introduction of mobile applications for these resources also provides the potential for increased use of the tools and better usability. Efforts should be made to provide resources in a manner that facilitates use and does not overwhelm the user.

3. HSI Tools, Techniques, Approaches, and Methods

This analysis employed the use of recognized HSI Tools, Techniques, Approaches, and Methods (TTAMs). In addition to using electronic research to gain

background information on the ASPP system, the following TTAMs allowed for organization of information gathered during background research, further data gathering from users, and synthesis of results.

a. Hierarchical Task Analysis

Hierarchical Task Analysis (HTA) is a technique for task analysis that represents the relationship between task and subtask (Kirwan & Ainsworth, 1992). Considered a broad approach to task analysis, developing the HTA includes stating the goal to be achieved, developing task/sub-task order and descriptions, and identifying the operations required to accomplish the tasks (Kirwan & Ainsworth, 1992).

There were four documents primarily used in this research that provided an objective starting point for the HTA of the ASPP system: Army Regulation (AR) 600-63: Army Health Promotion; Department of the Army Pamphlet (DA PAM) 600-24: Health Promotion, Risk Reduction, and Suicide Prevention; Final Report of the TFSP; and the RAND Corporation's *The War Within: Preventing Suicide in the U.S. Military*. Additional resources also provided details on the primary and secondary tasks within the system.

b. Semi-Structured Interviews

A semi-structured interview differs from a structured interview in that it allows the researcher to incorporate questions based on the respondent's previous responses. The term "structured" means the content of the interview is pre-determined (Kirwan & Ainsworth, 1992, p. 66). During the soldier interviews, we used a standard list of questions for each type of respondent and adjusted follow-on questions accordingly. The interviews were not used to determine risk factors for suicide, but to garner feedback on how the systematic construct of the ASPP was viewed and assessed by the users.

c. Link Analysis

Link analysis techniques were used to analyze the results. The links are the connections between stakeholders and other stakeholders, between stakeholders and

the system, and between upper-level system managers and lower-level system managers. These links provided insight into the reasons for and impacts of system mismatches. At its core, link analysis is a "representation technique, providing the means to record and represent the nature, frequency and/or importance of links within a system" (Kirwan & Ainsworth, 1992, p. 119).

B. ASPP SYSTEM OVERVIEW

1. The Army's Response to an Epidemic

The ASPP's stated mission is to "improve readiness through the development and enhancement of the ASPP policies designed to minimize suicide behavior; thereby preserving mission effectiveness through individual readiness for soldiers, their families, and DA civilians" (Army G-1, 2012, Mission section, para. 1). The ASPP can be classified as a system whose users include all Army military and civilian members and their families. This system provides policies and services and has additional complexity due to the nature of those services. AR 600-23 describes the two arms of SP: the formation of a Community Health Promotion Council (CHPC) (specific to the installation and without equivalence in deployed zones) and leader/soldier actions (Warner, C. H., Appenzeller, G. N., Parker, J. R., Warner, C., Diebold, C. J., & Grieger, T., 2011).

On a simplistic level, the ASPP system inputs include the users and their backgrounds, conditions, and environments. The outputs of this system are the number of suicides, with lower numbers being indicative of system effectiveness. System processes include the identification of risks, the assignment of resources to these risks, and the help seeking or risk-taking behaviors that result. Upon closer inspection, the ASPP is much more complex; this thesis describes and investigates the ASPP system in greater detail.

Properly designing this system means effectively meeting the objectives at the top and ensuring the resources meet the identified needs at the bottom. The gaps identified in this study will assist in determining focus areas for analysis. Combining this study's conclusions with the Army's reports provides a comprehensive view of the current successes and shortfalls of the ASPP system.

2. System Inputs

a. Key Stakeholders

The key stakeholders for the ASPP system include senior Army leadership, supporting commands for research and implementation, installation and unit leadership, and end users. End users include Army soldiers, civilians, and family members; however, this research focuses on soldiers.

The Army G-1 is the Army staff proponent for the ASPP system. Under supervision of the Health Promotion Risk Reduction Division, the Army G-1's role includes coordination and monitoring as follows (U.S. Army, 2010a, p. 3):

- Ensure that the ASPP is coordinated with, and nested within, the DoD Issuance responsible for Department of Defense-wide SP efforts.
- Ensure that the ASPP is represented on the Defense Centers of Excellence (DCoE) SP and Risk Reduction Council (SPRRC).
- Establish policy to provide health promotion, risk reduction, and SP program policy for non-installation based commands and geographically dispersed soldiers, to include Army National Guard (ARNG) and United States Army Reserve (USAR) components.
- Collect data to regulate, validate, and approve suicide-related event databases.
- Collect data and analyze suicide-related data for risk factors surrounding suicidal behavior to assist in the development and/or sustainment of effective strategies to reduce suicides and suicide attempts.
- Review and evaluate SP programs and their implementation.
- Primary source for reporting of official Army suicide rates.

The OCCH coordinates SP activities and training with the G-1 and The Surgeon General (TSG) (U.S. Army, 2010a, p. 4). The Surgeon General provides guidance in accordance with AR 350-1 in medical, physiological, and health areas including BH, nutrition, cardiovascular risk-factor reduction, and stress management. TSG establishes and reviews policy development in health promotion, SP, and other areas. Additionally, TSG oversees the medical aspects of Army training programs in SP

and provides training for health care providers in suicide-risk identification and treatment for patients who may be at increased risk of suicide (U.S. Army, 2010a).

Each installation is required to establish a Suicide Prevention Task Force (SPTF), as a part of the CHPC to plan, implement, and manage the local ASPP. The membership of this task force will be tailored to meet local needs. A Suicide Prevention Program Manager (SPPM) serves as the chair of the Suicide Prevention Task Force (SPTF). The CHPC is a council of tenant organizations that provides a comprehensive approach to health promotion, and is the designated representative of the senior commander to provide comprehensive health promotion policy and programs that are applicable to all garrison residents. The SPTF serves the following purposes (U.S. Army, 2010a, p. 8):

- Coordinate program activities and the SP activities of the command, interested agencies, and persons.
- Evaluate program needs and make appropriate recommendations to the commander.
- Review, refine, add, or delete items to the program based on an ongoing evaluation of needs.
- Develop awareness training for SP activities and identify appropriate forums for training.
- Evaluate the impact of the pace of training and military operations on the quality of individual and Family life in the military community.
- Recommend command policy guidance for training and operations issues to assure that soldiers and their leaders have sufficient opportunity for quality Family life.
- Be aware of publicity generated with respect to suicides in the community and develop public awareness articles for publication.
- Meet at the discretion of the task force presiding officer.
- In the event of a suicide, review the results of the psychological autopsy (as applicable) to look for the possible causes of the suicide and, if necessary, evaluate prevention efforts and make recommendations to the commander.
- Coordinate with civilian support agencies, as necessary.
- Implement an integrated Family member SP program.

- The SPPM accomplishes the following tasks (U.S. Army, 2010a, p. 8):
- Administers the SP program for both military and civilian members with a goal to reduce suicides.
- Serves as the presiding officer of the Suicide Prevention Task Force and coordinates the efforts of task force members.
- Serves as a member of the CHPC representing SP issues and providing input into related programs.
- Tracks the training of all Ask/Care/Escort (ACE)-certified personnel and ACE training for the installation, state, and RSC.
- Serves as the point of contact for program information and advice to the commander and to major subordinate commands.
- Integrates SP into community, Family, and Soldier support programs as appropriate.
- Coordinates with internal and external organizations to share information, trends, best practices, lessons learned, and training developments.
- Supporting Army agencies include the U.S. Army Public Health Command (PHC), the U.S. Army Medical Research & Materiel Command (MRMC). The PHC's primary stakeholder perspective is to provide oversight and assessment of the implementation of the ASPP from the public health perspective. The MRMC conducts research and acquisition activities that relate to the ASPP system. Together, these commands supplement policy development and system implementation within the Army.

Unit leadership includes the Major Command (MACOM), Installation Management Command (IMCOM), senior command, garrison command, and unit command teams. MACOM/IMCOM leadership is responsible for appointing the CHP/SP coordinators and developing and implementing a SP plan appropriate for their command (U.S. Army, 2010a). Senior commanders have the overall responsibility for health promotion, risk reduction, and SP efforts. Garrison commanders (U.S. Army, 2010a):

- Establish and chair a CHPC.
- Partner with the Medical Command (MEDCOM) in implementing health promotion programs, to include providing facilities support and staff assistance for unit health promotion events.

- Monitor aggregate data and implement a health promotion program at their installations in accordance with this regulation and instructions from their commanders.
- Appoint a task force or committee and designate a presiding officer to plan, implement, and manage the ASPP.
- Coordinate with union organizations representing Army civilians, as applicable.
- Encourage all members of the CHPC to attend the Army Health Promotion Course.

For the purposes of this thesis, the unit command team is the lowest level Company Commander and First Sergeant. Soldiers report directly to the unit command team for military matters and the unit command team is responsible for the overall health and welfare of each soldier. Because suicide is different for every individual, the soldier and his or her needs should be a priority consideration for the system design. Figure 6 summarizes the system's key stakeholders and their relationships.

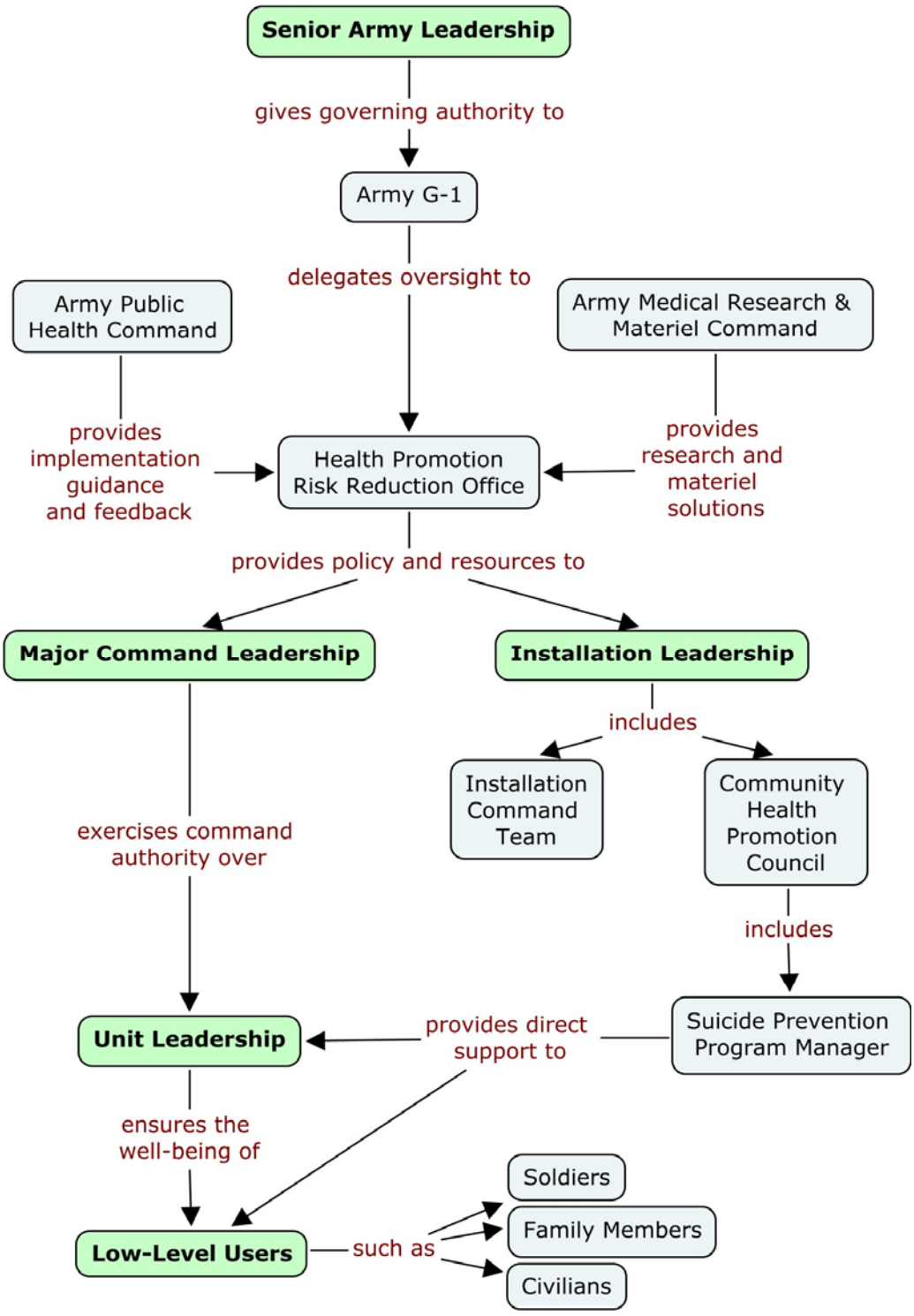

Figure 6. ASPP Key Stakeholders and Relationships

b. User Needs

User needs are vast and varied, given the intricate nature of suicidality. While volumes of research exist on the risk factors associated with higher likelihood of suicide, it is not matched by an equal amount of analysis on suicide minimizing factors in the general sense. Additionally, a full needs assessment for the military population with relation to system design was not accomplished prior to the implementation of the ASPP system. Both Army doctrine and other literature were used to ensure the users' needs list presented here was exhaustive.

There were four needs explicitly identified in ASPP and TFPS documents. First, according to DA PAM 600-24, "most suicides and suicide attempts are reactions to one or more of the following intense feelings: loneliness, worthlessness, hopelessness, helplessness, and guilt" (U.S. Army, 2010b, pp. 10—11). Although it goes on to present some ways to mitigate these feelings, neither AR 600-63, nor DA PAM 600-24 present a comprehensive list of factors that directly minimize these risks. It is important to note epidemiological risk demographics associated with suicide should be viewed as preexisting conditions, not risk factors that can be minimized. For example, a soldier's age is a risk demographic, but the same soldier's relationship problem is a risk factor.

The AR notes the soldier's ability to develop life coping skills as a SP need, but the ASPP does not include all protective factors within this regulation. The CSF program, a separate entity, functions as the umbrella of efforts to increase soldiers' protective factors. However, the DoD TFPS's final report presents a diagram in of risk factors and protective factors (see Figure 7); this offers the clearest juxtaposition found in the literature review of the risk factors versus protective factors. This diagram suggests the need to maximize protective factors while minimizing risk factors.

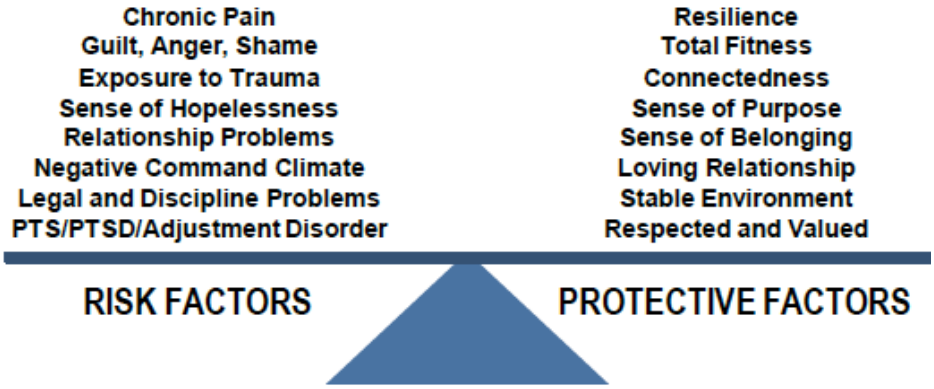

Figure 7. Risk and Protective Factors in SP (From TFPS, 2010, p. 37)

Table 1 combines the information gathered from this needs overview and presents the author's view of suicide risk factors along with their associated protective factors. Being able to articulate which protective factors contribute to decreasing which risks is vital in determining focus areas for training.

Table 1. Soldier Needs: Minimization of Risk Factors and Maximization of Protective Factors

Minimize Risk Factors	Maximize Protective Factors
Chronic Pain	*Total Fitness*
Guilt, Anger, Shame Burdensomeness	*Resilience*
PTS/PTSD Adjustment Disorder	*Medical Knowledge Management*
Exposure to Trauma	*Post-Traumatic Growth*
Sense of Hopelessness	*Sense of Purpose* *Connectedness/Belongingness* *Respected and Valued*
Relationship Problems	*Loving Relationship*
Negative Command Climate	*Unit Cohesion* *Peer Support* *Engaged Leadership*
Sleep Disturbances	*Quality Sleep Practices*
Impact of Transition Periods	*Stable Environment*
Legal/Discipline Problems	*Surviellance*
Risky Behavior	*Limited Access to Firearms*

Third, the regulation emphatically states, "the key to the prevention of suicide is positive leadership and deep concern by supervisors of military personnel and civilian employees who are at increased risk of suicide" (U.S. Army, 2010a, p. 14).

Fourth, the need for appropriate involvement by gatekeepers is focused on the need for buddy care. "Buddy" is a term primarily applied to a soldier's friends, but may also be acceptable when referring to those who have loose interaction in the same unit or installation. The Army's intent is for each to consider another soldier a buddy when identifying and minimizing suicide risk.

c. Design Strategy

The ASPP system design strategy is an outgrowth of national, defense, and Army strategies. In 2001, the Surgeon General's National Strategy for SP "recommended the Gatekeeper Model of SP" (Claassen, n.d., p. 20). Most prevention methods fall into two categories: reducing risk factors for suicide or seeking out people at risk for suicide for referral and eventual treatment, or case finding (Isaac et al., 2009). As the main strategy the Army adopted for prevention training, it is important to note a 2009 observation, "gatekeeper training shows promise for multifaceted prevention strategies by increasing the KSAs of trainees" (Isaac et al., 2009, p. 66). Gatekeeper training continues to be the focal point of SP training and buddy care is a well-known phrase among soldiers.

Since its inception, the system continues to include the National Strategy for SP as it changes. The 2012 National Strategy for SP is organized into four interconnected strategic directions: "Healthy and Empowered Individuals, Families, and Communities; Clinical and Community Preventive Services; Treatment and Support Services; Surveillance, Research, and Evaluation" (U.S. Department of Health and Human Services (Office of the Surgeon General and National Action Alliance for Suicide Prevention (NAASP), 2012, p. 24). The strategy goes on to say "SP interventions, products, and services should be tailored to the cultural, linguistic, and other needs of each group" (NAASP, 2012, p. 25).

In the final report by the TFPS, the members reaffirm the need for a comprehensive SP program, with four major focus areas (see Figure 8). The TFPS also

presented 18 strategies and 13 foundational recommendations (see Appendix A) for the DoD to adopt to enhance SP efforts, noting, "each of the focus areas both informs and builds on one another" (TFPS, 2010, p. 35).

Figure 8. Developing a Comprehensive SP Strategy (From TFPS, 2010, p. 35)

Ramchand (2011) identifies six recommended primary activities of a SP program based on the RAND Corporation's comparison and assessment of each of the DOD SP programs. These top-level activities are: raise awareness and promote self-care, identify those at risk, facilitate access to quality care, deliver quality care, restrict access to lethal means, and respond appropriately. Table 2 shows a summary of the state of these activities by service at the time of the report's publication. Activities highlighted in green represent those being accomplished effectively, amber activities are being accomplished but could be improved, and red are those activities that need improvement.

Table 2. Assessment of Suicide Prevention Activities across the Services (From Ramchand, 2011, p. 106)

Goal	Army	Navy	Air Force	Marines
Raise awareness and promote self-care	Primarily awareness campaigns, with fewer initiatives aimed at promoting self-care			
Identify those at risk	Expansive but rely mostly on gatekeepers	Mostly rely on gatekeepers	Investigation policy	Mostly rely on gatekeepers
Facilitate access to quality care	Stigma addressed primarily by locating behavioral health care in nontraditional settings			
	No policy to assuage privacy or professional concerns		Limited privilege	No policy
	No education about benefits of accessing behavioral health care			
Deliver quality care	Not considered in domain of suicide prevention		Past efforts exist with a sustainment plan	Past efforts exist, but not sustained
Restrict access to lethal means	No current policies exist		Limited guidance	No policy
Respond appropriately	Personnel/teams available, but limited guidance			

The Air Force established a multilayered array of initiatives and "demonstrated that a public health approach saved lives involving multiple forms of violent death—suicide, homicide, and accidental death—as it targeted antecedent morbidity (e.g., family violence, alcohol use, financially related tensions) using a 'common risk' strategy" (Caine, 2012, p. S4). In praising the Air Force's efforts, Bryan, Jennings, Jobes, and Bradley (2012) note how its implementation of this population-based program in 1997 succeeded in reducing suicide deaths by one-third. Although the Army may not be able to replicate all of the Air Force's approaches due to cultural differences, there is value in determining which of their best practices can be transferred into the ASPP.

The Army's five major strategies for SP are outlined in AR 600-63 as: "developing positive life coping skills; encouraging help-seeking behavior; raising awareness of and vigilance towards suicide prevention; synchronizing, integrating, and managing the ASPP; and conducting suicide surveillance, analysis, and reporting" (U.S. Army, 2010a, pp. 15–16). Unit commanders design their SP training programs with input from their higher headquarters and the ASPP Program Manager's office.

3. System Processes

The initial task decomposition for the ASPP system activities includes the five-pronged, three-phased approach as the means to accomplish the system's activities. As previously stated, the five strategies are accomplished in the three SP phases of prevention, intervention, and postvention (see Figure 9).

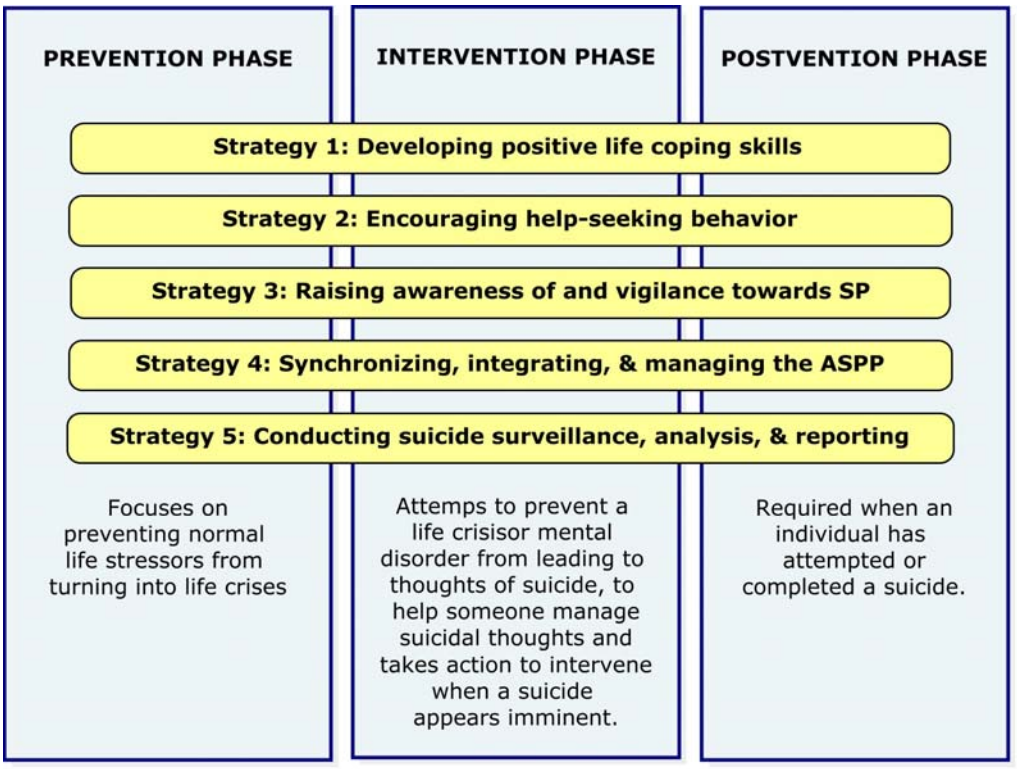

Figure 9. ASPP Phases and Strategies (Note: Descriptions from U.S. Army, 2010c, p. 1)

Although the ASPP system does not present groups of activities in a chronological order, prevention can minimize suicide activity prior to a suicide event developing. In addressing suicide issues, prevention can overlap the other two phases of activities, especially for those who have had previous suicide events. There are three types of interfaces created to accomplish prevention tasks: human interfaces, system interfaces, and physical interfaces.

The human interfaces are the development of relationships that lead to gatekeeper interaction, as well as the use of human and medical resources provided for assistance.

An example of a human interface within the system is the use of Chaplain services for those who seek help with spiritual fitness during major life stressors. For the purposes of this study, system interfaces are those actions taken to connect the user to the system. In other words, these interfaces ensure the user knows how to operate the system, what the system provides, and the roles of other system users. This is mainly accomplished for the ASPP system as unit SP training, annual and supplemental. Different user roles may dictate different levels of training. The physical interfaces are those objects used to inform users, provide strategic communication of messages and themes, and give users a means of facilitating the other two interfaces. The most common physical interfaces are pamphlets, videos, and Web pages.

4. System Outputs

The primary system outputs for the ASPP are the human-system interactions and the annual suicide statistics. Chapter III will describe the steps taken to conduct a retrospective analysis of this information for suicide statistics from 2008—2011, using the DoD Suicide Event Reports (DoDSERs) as the primary data sources.

The Army Suicide Event Report (ASER) replaced the psychological autopsy and was implemented beginning in 2003 (Ritchie, 2012). In 2008, the DoD mandated the use of the DoDSER as a standardized suicide event report across the services using the process outlined in Figure 10. Each year, T2 produces an annual report that summarizes and analyzes the statistics associated with these reports. The annual report presents data for the entire DoD and each service. Given the changing in the format from the original formats in 2006 and 2007, only the DoDSERs from 2008—2011 were analyzed for this research.

Within the DoDSER, there are sections for Communication of Intent, Treatment History, and Additional Event Information. These sections show the statistics for those who had a suicide event (that was reported) and also interacted with a human interface within the system. Comparing these sections can help relate the instances of suicidal behavior to system interactions leading up to the event.

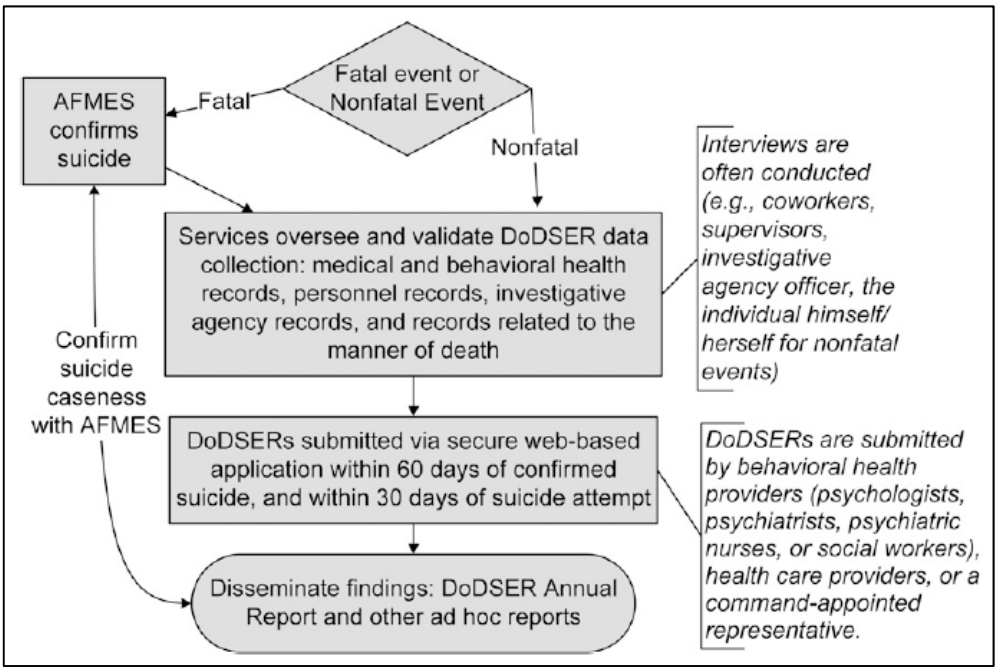

Figure 10. DoDSER Process Flowchart. (From Gahm et al., 2012, p. 25)

5. Summary

Given its importance in the SP continuum and applicability to the widest range of users, the research team scoped this study to activities within the prevention phase. Using the knowledge gained from electronic research and communications with subject matter experts, the ASPP HTA was developed using a variation of frequently used HTA formats (see Appendix B). Consistent with the focus of this research, the HTA was translated into the OV model in Figure 11 to summarize how the prevention activities within the system should operate. The prevention efforts are defined as follows:

> Prevention focuses on preventing normal life "stressors" from turning into life crises. "Prevention Programming" focuses on equipping the Soldier, Family member, and Army DA civilian with coping skills to handle overwhelming life circumstances. Prevention includes early screening to establish baseline mental health and to offer specific remedial programs before dysfunctional behavior occurs. Prevention is dependent upon caring and proactive unit leaders and managers who make the effort to know their personnel, including estimating their ability to handle stress, and who offer a positive, cohesive environment which nurtures, and develops positive life-coping skills. These "gatekeepers" serve as the first line of defense to mitigate risk. (U.S. Army, 2010b, p. 4)

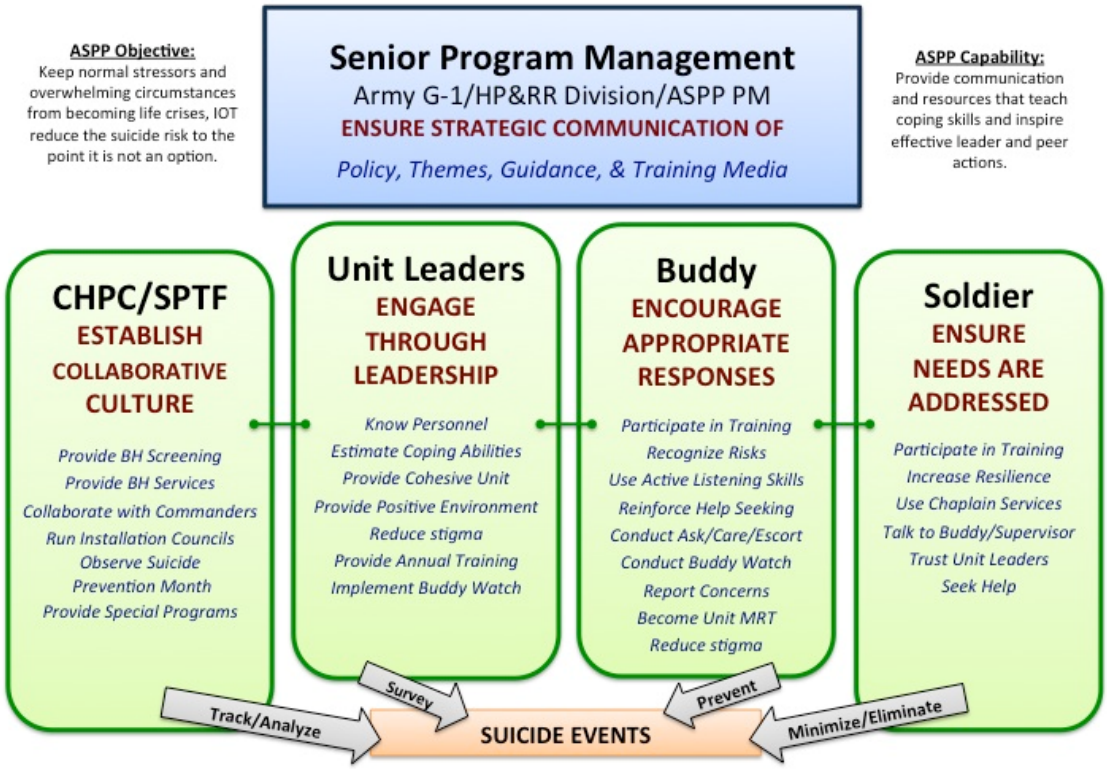

Figure 11. ASPP System OV Model for Prevention Activities

To assess the effectiveness of these activities, the interviews addressed the research questions restated below:

- Is there a mismatch between the resources offered by the ASPP system and the needs of the soldiers who use the system?
- Does the assessment of ASPP system vary between those who have previous experience with suicide and those who do not?
- Is there a difference in system assessments between soldiers of different genders and rank categories?
- Does the stigma associated with help-seeking behavior contribute to risk-taking behavior?

Due to the absence of a user needs assessment, the lack of integration of more protective factors into the ASPP documents, and top-down design approach, the research team predicted there would be a mismatch between the system resources and the user needs. The research team also predicted there would be a difference in the user assessments based on rank, gender, and levels of experience with suicide. More specifically, there would be less favorable assessments from those with higher ranks due

to the system's focus on buddy care. The research team did not make specific predictions based on gender and experience levels. Finally, the research team predicted the existence of a stigma would minimize use of the system, and therefore contribute to risk-taking behavior.

By identifying trends in the retrospective data and gathering users' views of system interfaces, this analysis identified potential gaps in the system. Properly designing prevention activities means effectively meeting the overall system objectives and ensuring the activities meet the identified user needs. The gaps identified in this study will assist in determining focus areas for a comprehensive view of the current successes and shortfalls of the ASPP system. Ideally, user needs should dictate the system design strategy and corresponding system processes. The next two Chapters detail the method used to examine the prevention activities from an HSI perspective.

III. RETROSPECTIVE ANALYSIS METHODS & RESULTS

A. OVERVIEW

This study was conducted using a combination of retrospective analysis and face-to-face, semi-structured interviews. The goal of the retrospective data analysis was to determine trends in suicide events and the use of ASPP human interfaces. The goal of the interviews was to gain qualitative feedback from current ASPP system users. This feedback describes their interaction with the ASPP system, assessment of the three types of systems interfaces, and recommendations for system improvements. The variables of interest for this study included the rank, gender, and previous experience with suicide. The sample population was 24 volunteer participants at one Army installation. The participants are described in the next Chapter.

B. METHOD

DoDSERs are submitted for all Active Component, Active Guard Reserve, and activated Reserve and Guard suicides (T2, 2009). Therefore, this analysis only covers those soldiers on active duty orders during a suicide event. The total number of suicide events reported annually from 2008—2011 was gathered from each of the DoDSER annual reports (completed by calendar year). Table 3 shows the total counts and percentages by year for each suicide event category.

Table 3. 2008—2011 Army DoDSER Submissions for Suicide Events

	2008		2009		2010		2011	
	Count	%	Count	%	Count	%	Count	%
Suicide Completion	121	6%	154	7%	147	9%	159	9%
Suicide Attempt	591	28%	502	23%	413	24%	440	26%
Self-Harm (w/o intent to die)	418	19%	347	16%	237	14%	188	11%
Ideation Only	1017	47%	1198	54%	918	54%	888	53%
Total Suicide Events	2147		2201		1715		1675	

Notes: Number Suicide Completions included in DODSER Annual Reports is not reflective of total confirmed suicides; Multiple reports could be submitted for an individual

The number of suicide completions is accurate as of the date of the annual report and not necessarily reflective of the total number of confirmed suicides for that year.

Also, an individual can have multiple reports and each of those reports could be submitted independently from the other. From these numbers, we see an increase in suicide events reported from 2008—2009, then a decrease in each of the next two years. More or less compliance with DoDSER reporting could also explain the changes between the years. The percent of the reports for suicide completions increased from 2008—2010 and remained the same from 2010—2011. The only percentage that decreased each year was self-harm without intent to die. The highest total number of events reported during these four years was in 2009. For each year, the highest percentage of reports submitted was for ideations only.

C. RESULTS

Human interfaces include those people soldiers used for help with suicide, such as medical, religious, family, and work personnel. The information provided by the DoDSER annual report does not include whether those resources were sought voluntarily or at the direction of the chain of command. Figures 12 and 13 summarize these activities from two perspectives: those who received treatment prior to a suicide event and those who communicated their intent prior to a completed suicide. The numbers reported are in percentages of the total for each category.

A Medical Treatment Facility (MTF) or Outpatient BH (OBH) clinic saw the majority of soldiers with suicide event reports prior to a suicide event. The next most frequented type of service was Inpatient BH (IBH). The Chaplain, Army Substance Abuse Program (ASAP), and Family Advocacy Program (FAP) were the least frequently used services recorded for this population.

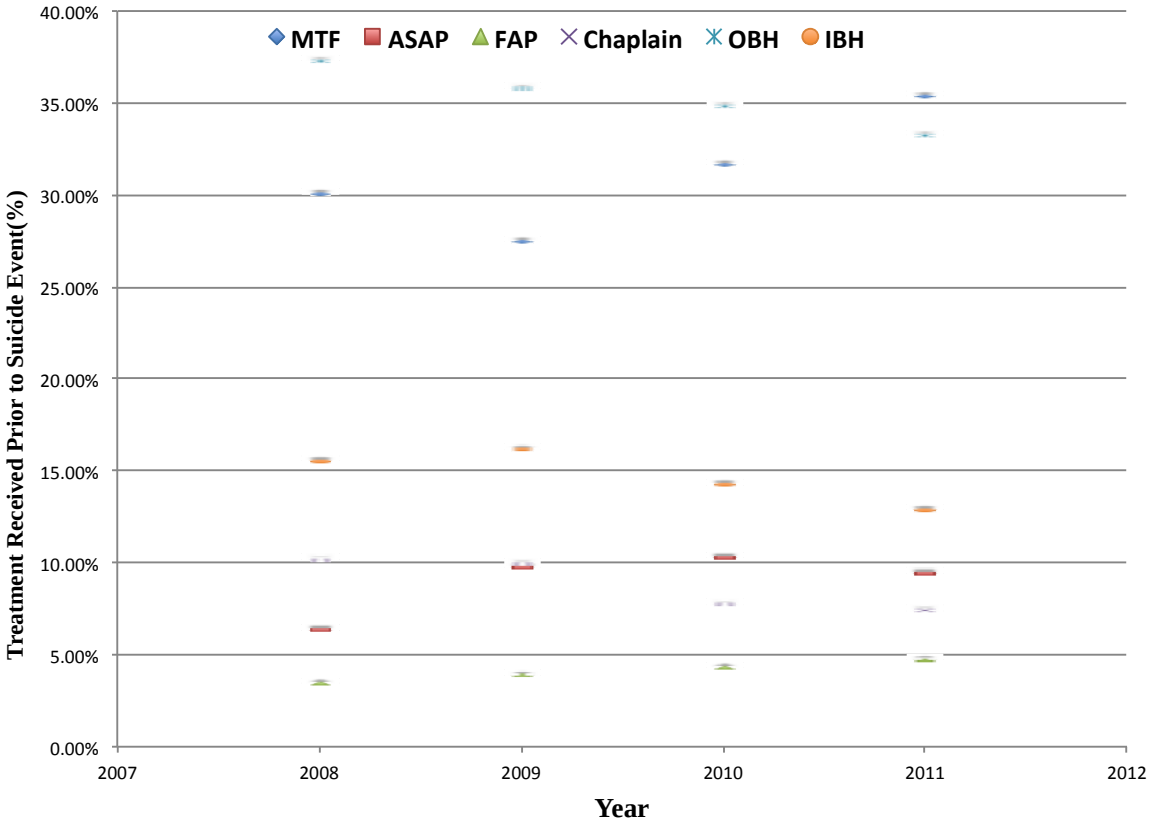

Figure 12. Percentage of Soldiers who Received Treatment Prior to Suicide Event for 2008—2011 DoDSER Annual Reports

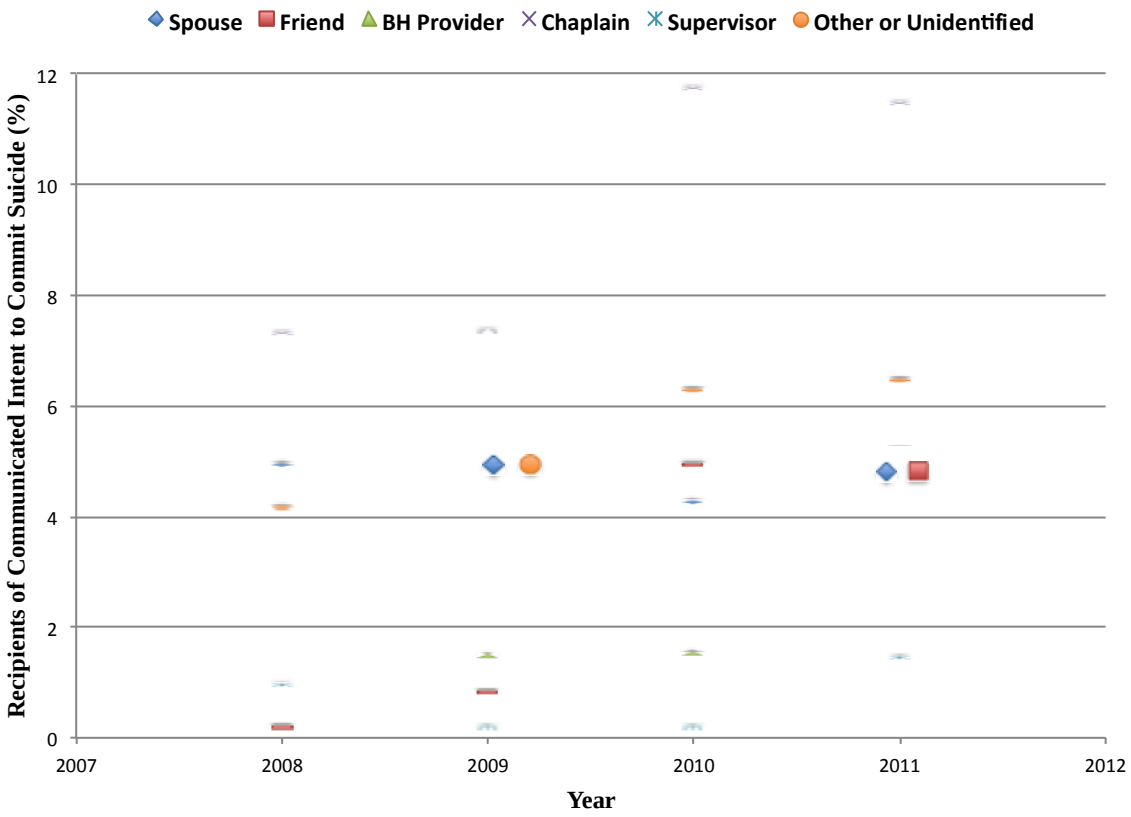

Figure 13. Percentage of Recipients of Communicated Intent prior to Completed Suicide for 2008—2011 DoDSER Annual Reports

From 2008—2011, reports noted less than half of soldiers communicated intent to harm themselves before successfully committing suicide, with the highest year totaling approximately 30 percent in 2010. The Chaplain was the resource to which intent was communicated the most each year, with a rate slightly above 7 percent for 2008 and 2009 and above 11 percent for 2010 and 2011. The next two categories that received communication of intent were Spouse and Other/Unidentified. Friends receiving communication of intent was the lowest category in 2008 and the second lowest in 2009. However, this category received a significant spike in 2010 and 2011, surpassing Spouse, BH Provider, and Supervisor. The overall lowest two categories were BH Provider and Supervisor, at less than 2 percent for all four years.

D. LIMITATIONS

The main limitation on the retrospective analysis was the format of the DoDSER annual reports. The DoDSERs used for the 2008—2011 showed changes in formatting as time progressed. Therefore, some categories present in 2008 and 2009 were no longer captured in 2010 and 2011. Each year, the numbers from the previous year's report were also updated. The research team overcame this limitation by ensuring the information analyzed was the same for each year. The level of detail provided in the annual reports was extremely helpful in answering the questions associated raised when understanding the reports. Each report also provided summaries for the DoD and each service that captured major trends and changes from the previous year's report format. Also, the 2012 DoDSER annual report was not complete in time for this study.

E. CONCLUSION

Examining trends for those who had suicide events reported between 2006 and 2011 helped in the development of interview questions. Despite the limitations of these reports and the lack of data available for 2012, from the results we gathered first insight into those resources that are used often and those that are not.

More soldiers received treatment from an outpatient facility than an inpatient facility, which could indicate an issue with limited availability for inpatient treatment or issues with appointment availability. Conversely, this could simply be indicative of the different treatment plans determined for the soldiers. The fact that the Chaplain was the most frequent recipient of the communication of intent was not surprising. However, the low use of Chaplain services prior to a suicide event was a concerning statistic. Overall, better visibility of which resources are used and actually succeed in preventing a suicide event would increase accountability of the usefulness of the system. Being able to compare mandatory treatment versus voluntary treatment would also be tremendously helpful for more in-depth analysis.

The conclusions drawn here were relatively subjective, but categories used in the DoDSERs reflect the various human and medical resources available for treatment and communication. Asking soldiers their opinion on these same categories would provide feedback on the detection and reporting shortfalls within the system.

IV. DATA COLLECTION METHODS

A. OVERVIEW

The semi-structured interview format was used to determine the effectiveness of the ASPP system from the user's perspective. The first step in conducting the interviews was developing an appropriate set of questions to address the research questions. Next, the population from which to sample volunteer participants was identified. Finally, the researcher became familiar with the organizational and operational structure of the unit and volunteers were recruited and interviewed.

Concurrent with developing the interview questions, the research team submitted an application to the NPS IRB to conduct human subjects research. The application included a description of the research purpose, methodology, risks, and benefits. Once the IRB application was approved, the researcher contacted a U.S. Army division personnel office for approval from the unit leadership to participate in the study.

B. SAMPLE

1. Unit Background

The week prior to conducting the interviews, the researcher traveled to the unit and conducted in-briefs with the installation SPPM and the unit's Assistant Chief of Staff for Personnel. These meetings yielded important background and historical information on the unit's organizational structure and the specifics of its SP program. The researcher also observed a portion of installation ASIST training and the installation Newcomers' Brief. The Chaplain's office was informed of the study and agreed to be available in the event of an emergency. The researcher also conducted recruitment during this time.

The SPPM provided an overview on her role at the installation SP office. The office is co-located with and falls under the purview of the ASAP office. She coordinates the installation's SPTF meetings and can provide units annual SP training when requested,. When a suicide occurs, the units are not required to submit DoDSERs to the SPPM. When asked about the SP coordination between the installation leadership, unit

commanders, and supporting medical and legal agencies, the SPPM lauded the locally established "Fusion Cell." The Fusion Cell is a collaborative entity that assists in providing unit leaders visibility over high-risk soldiers, shares information between command and tenet organizations to facilitate risk reduction, and "operate as an added element that falls under the purview of the medical community." The SPPM noted she had considered eliminating the regular SPTF meetings due to the success of the Fusion Cell meeting, which serves a similar purpose. The difference between the two bodies, however, is the SPTF is more inclusive of multiple installation agencies, whereas the Fusion Cell works more with commands. There was not a forcing function to ensure units attended both, so eliminating an unnecessary meeting was a viable consideration. The organization has since decided to continue the SPTF meetings. Summarily, the SPPM functions as resource for units on the installation, but including this office in unit activities is voluntary.

The division personnel office provided an overview of the unit's SP program. The unit's HP/RR/SP policy establishes internal SPPMs at the division and brigade levels. There are also soldiers identified as Master Resilience Trainers (MRTs) from division to company level. There are three characteristics of the unit's program that make it unique from other divisions. First, this is the only installation that uses the previously described Fusion Cell. Second, the unit leverages the local MTF's BH residents to provide embedded BH care (referred to as "ePsych") at the unit level. Residents are active members of the battalions and provide services for soldiers on-site, as opposed to in hospital or clinics. The use of ePsych greatly decreases the distance between the Soldier and assistance and provides first-hand military experience for residents. The Brigades also have Military Family Life Consultants (MFLCs) available to provide assistance to soldiers and families.

Finally, the unit created Lightning Strong, a program that mirrors the Army Comprehensive Soldier and Family Fitness (CSF2) Program. According to a 2012 brief on the program, the unit commander makes this program a top priority, aiming to "implement the program at all levels within the division as an immediate and enduring solution necessary to ensure improvements in HP and RR policies, increase resilience of

soldiers, civilians, and family members, and to sustain mission readiness." In addition to the five dimensions of the Army's CSF2 program, the unit has also added financial fitness as a sixth dimension of resilience. The Risk Evaluation and Assistance Determination Instrument, Version 4 (WARRIOR) (READI-v4 WARRIOR), which is similar to the Army's Soldier Risk Reduction Tool, is a unit-customized tool that leaders in this division use to assess soldiers' risks and mitigation strategies. The tool is required at all levels and the document is destroyed after completion. The unit's leadership stresses the importance of the program and works to maintain a relevant and creative strategy.

2. Participant Recruitment

The inclusion criteria for uniformed participants were rank and unit of assignment. Those allowed to participate were ranks E1 (Private) through O8 (Major General) and had to be assigned to the division. All participants had to be able to speak and read English. There are no demographics or previous experiences that would disqualify a respondent from participation. The researcher took the proper precautions and informed leaders that the participants would have ready access to key mental health resources and be escorted to these resources if necessary. The interview could also be terminated if a subject had a grossly negative reaction to the interview questions.

C. MATERIAL

1. Interview Questions

The overarching research question was: is there a mismatch between the needs of the users and the ASPP resources as a result of the system design? The interview questions were formulated into three groups: an examination of user needs, an assessment of the three different system interfaces, and an evaluation of overall system functionality. Some questions were in survey format, allowing users to pick from a set of pre-determined responses, and others were open-ended (see Appendix E). In every interview, users were given the opportunity to comment on what they thought the system did the best, what needed the most improvement, and any additional areas they wanted to discuss. Figure 14 shows the final list of interview questions, categorized into sections.

When discussing a specific path to care once an individual requested help or was identified as needing help, the researcher asked participants to think aloud as they navigated through the system and recommended solutions from their perspective. These responses were used to conduct a link analysis and develop a diagram of the process. Being able to hear how each user cognitively processed each decision was key to finding out what works and what does not.

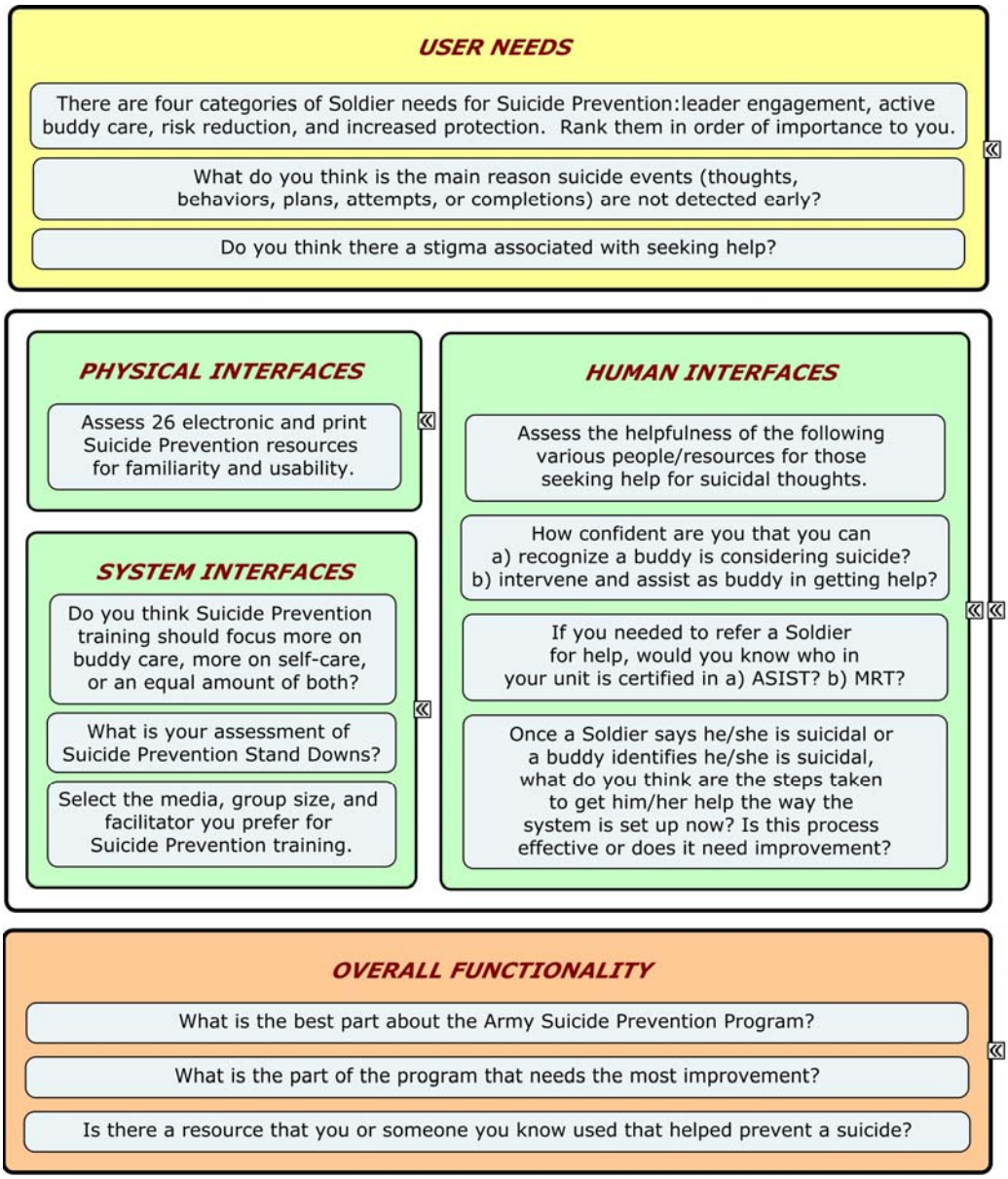

Figure 14. Interview Questions by Category

2. Analysis Tools

The equipment and analysis tools used for this study were minimal. The consent forms, data sheets, and response sheets were printed in advance of the interviews. The interviewer used a DM500 digital voice recorder to record the interviews and assist in note transcription. A Dell Precision MA300 was used to back up recordings during transcription. The SPPM provided the *Army Suicide Prevention Leaders Guide* (Appendix F) that was given to participants at the conclusion of the interviews. The researcher conducted initial distribution and statistical analysis using Microsoft Excel and JMP Pro 9. A MacBook Air computer was used for all data analysis.

D. PROCEDURES

The interviews were conducted one-on-one and in a private setting, with the researcher in civilian business attire. The consent process and interview took approximately 30 minutes per respondent. Participants were informed the discussion would include some sensitive questions about stress, mental state, and suicide and they could terminate the interview if they felt uncomfortable at any time. The researcher informed participants she would terminate the research study if she felt the topics discussed caused unnecessary stress or anxiety. The researcher also requested to follow-up with subjects via email or phone within a week of the interview. The tasks accomplished in chronological order were:

- Researcher reviewed background information and purpose of study
- Participants provided consent
- Completion of survey questions
- Completion of open-ended questions
- Researcher provided SP pamphlets and requested to follow up with the subject.
- Researcher followed up when necessary

E. LIMITATIONS

There were two limitations to the data collection aspect of this study. First, the sample size was small and did not allow for inferential statistical data analysis. This

resulted from a combination of the amount of time available to complete the interviews and limited manpower. The researcher conducted as many as possible over the course of a week and the maximum number that could be accomplished each day was limited by the interviewer's schedule and the organization's mission requirements. From the perspective of gathering qualitative feedback, which was the focus of this study, the 24 participants provided more than enough data for an efficient data collection process. Future variations of this research should include more manpower and allocate sufficient time to ensure a much larger sample size.

The second limitation was the existence of this unit's program as a microcosm of the larger ASPP system, not a replica. The research team could draw conclusions about the execution of the system across the Army, but only make comparisons between the understanding of the theoretical system construct identified in Chapter II and the assessments given by those interviewed. The next Chapter will detail this comparison in order to answer the four research questions. All analysis and discussion should be viewed as the researcher's analysis and interpretation of the soldiers' perspectives in this particular unit and the background research conducted for this study.

V. RESULTS AND DISCUSSION

A. PARTICIPANTS

Twenty-four soldiers volunteered to participate in this study. Figure 15 shows the demographic distributions of the sample. The participants were highly diverse in Army experience and job positions. Out of the 24 participants, 13 were enlisted soldiers, nine were officers, and two were warrant officers. Eight participants were non-commissioned officers (NCOs). Six participants were females and 18 were males. The participants' ages ranged from 20 to 45, with mean and standard deviation 33.6 and 8.2 years. The participants' Time in Service (TIS) ranged from six months to 27 years, with mean and standard deviation 11.7 and 8.1 years. Two participants reported a family history of suicide, while 16 reported personal experience with suicide or a suicidal person.

B. ANALYTICAL METHOD

There were two main analytical methods employed for this analysis: distribution analysis and qualitative analysis. All questions, regardless of type, were analyzed by reviewing the distribution of the answers. In order to accomplish this, a pre-determined set of categories was created for each open-ended question. The categories used for the survey questions were those answer options given to the participants. Although optimal analysis would have included the appropriate statistical tests, the number of responses could not meet the assumptions and conditions for these.

The following sections present the results of the interviews by describing the intent of the questions (and expected outcomes, if applicable), the general distribution of the answers, comparisons of answers between demographics, and some of additional information gathered from open-ended answers. For the purposes of this analysis, the "Career" category was constructed to allow 8 participants in each level, using the following breakdown: "Junior" included ages 20—34 years, TIS 6 months—9 years; "Mid-Grade" included ages 28—45 years, TIS 9—16 years; and "Senior" included 37—45 years, 16—27 years.

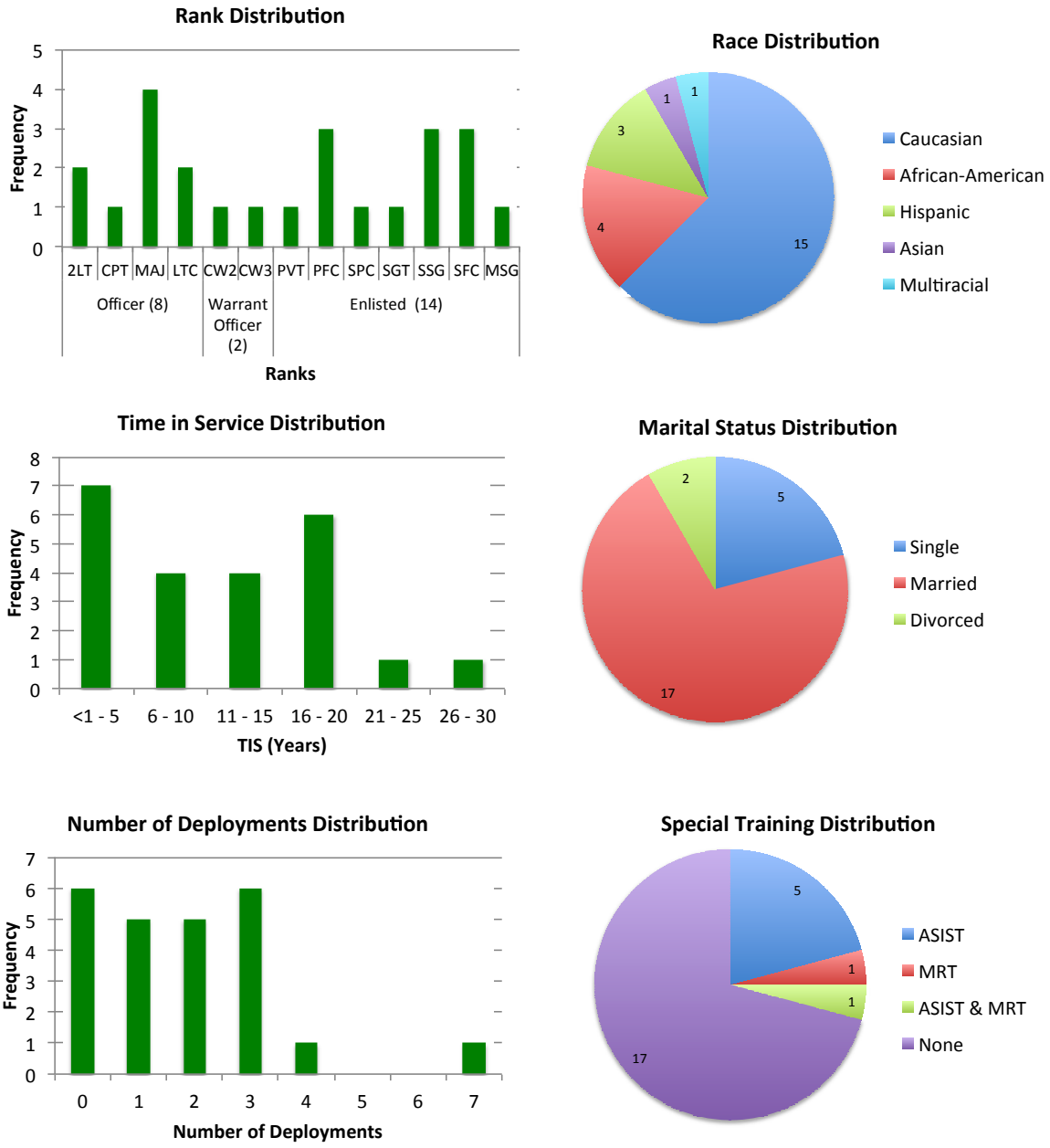

Figure 15. Distribution of Participant Demographic Information

C. RESULTS

1. User Needs Questions

The first set of questions was related to the needs of system users, particularly soldiers. The goal was to determine how soldiers ranked the four needs identified in the literature review: engaged leadership, active buddy care, risk reduction, and increased

protection. The current focus of the Army's SP training and strategic messages focused on active buddy care and risk reduction. Engaged leadership is noted in policy as a necessary aspect of a successful program, however that need is more understood than directly addressed in strategic communications about suicide prevention when compared to the other topics. Figure 16 shows the distribution of responses for the most important of the four needs.

Question 1. Rank the following suicide prevention needs in order of importance to you.					
Answers (Selected as Top Need)		Engaged Leadership	Active Buddy Care	Increased Protection	Risk Reduction
Total		9	4	8	3
Rank	Officer	3	2	3	1
	Warrant Officer	1	-	1	-
	Enlisted	5	2	4	2
Gender	Male	7	3	5	3
	Female	2	1	3	-
Career	Junior	2	2	3	1
	Mid-Grade	4	2	2	-
	Senior	3	-	3	2

Figure 16. Number and Types of Responses to Most Important Need

Engaged leadership was ranked highest by 38 percent of the respondents. Increased protection was ranked most important by 33 percent of the participants. Active buddy care and risk reduction were the bottom two ranked highest at 17 percent and 13 percent, respectively. Engaged leadership was the highest need for 38 percent of the enlisted participants. Among the officers, 33 percent listed engaged leadership and 33 percent listed increased protection. Between the two warrant officers, one selected engaged leadership and one selected increased protection. Half of the female participants identified increased protection as the top need, whereas the most important need among males was engaged leadership. Junior, mid-grade, and senior participants selected engaged leadership or increased protection as the top need most often. Active buddy care and risk reduction was not the most important need for any category, or in total.

The interviewer asked Question 1 by handing participants four cards, one with each need and examples of what the need included. The participants were given time to

digest the information and set the cards out in order of most important to least important. Some soldiers thought they had an answer very quickly by looking at the title. As some laid the cards out, they realized they had not read what the topic included and made the necessary adjustments. Specifically, some gave more attention to increased protection as time went on and moved it higher or lower based on their preference. Some knew instantly they wanted to list engaged leadership first no matter what was on the other cards.

Participants also made the following summarized comments about SP needs:

- The buddy is probably the most important—the first person a Soldier will turn to is their buddy, not a slide or video. (male officer)
- In the military we always push the buddy system and stress we can't work if we are not a cohesive team. (female NCO)
- You have to put out the fire first. If you don't reduce the risk (like PTSD), no matter how much leadership you have if that is still there, this is not going to help. (male NCO)
- If you want to kill yourself, the risks are the things that are going to make you want to. Your leadership is not going to make you want to. If you have pain or PTSD, that's what going to put you in that place. If you can deal with those you are much better off. (male soldier)

Figure 17 shows the participants' distribution of explanations as to why suicide events are not detected early. Participants were not given answer options, but their answers were grouped appropriately during analysis. Most participants (29 percent) identified the main reason suicide events are not detected early is because the signs are not recognized. When asked why this was the case, responses centered around the isolated environment that many soldiers live in, either because of their workload, domicile location, personal space preference, or lack of caring. Lack of leader involvement was identified by 21 percent of participants. The next two categories identified by 29 percent of participants combined were either soldiers not getting or not offering help. For these two categories, some determined this could be the result of an organizationally or self-imposed stigma. Other reasons were identified that did not fit into the aforementioned categories.

Question 2. What do you think is the main reason suicide events are not detected early?							
Answers		Lack of Leader Involvement	Signs Not Recognized	Soldiers Don't Get Help	Soldiers Don't Offer Help	Other	I Don't Know
Total		5	7	4	3	5	-
Rank	Officer	2	5	-	1	1	-
	Warrant Officer	-	-	1	-	1	-
	Enlisted	3	2	3	2	3	-
Gender	Male	3	5	4	2	4	-
	Female	2	2	-	1	1	-
Career	Junior	1	1	1	3	2	-
	Mid-Grade	3	2	1	-	2	-
	Senior	1	4	2	-	1	-

Figure 17. Numbers and Types of Responses to Reasons Suicide Events are not Detected Early

The most frequently identified reason among officers and males was signs not being recognized, with responses being 83 percent and 27 percent respectively. The enlisted responses were somewhat evenly distributed between the four categories. The majority of responses from female participants were between lack of leader involvement and signs not being recognized. Fifty percent of senior participants said the main reason was signs not being recognized, while 38 percent of junior participants said soldiers do not offer help and 38 percent of mid-grade participants said lack of leader involvement. In general, most confirmed that soldiers are trained on what to look for, but that did not mean the detection actually happened. Some of the enlisted participants said they could be more informed on what signs to look for.

Participants also made the following summarized comments about detecting a Soldier needs help:

- People don't care. We just do our routine. The office is a routine. If they do think something is wrong they don't want to be the ones to approach them. (female officer)
- Signs are hard to notice, if you are too close to the person you are not going to see the signs, and that's where the first line and second line supervisors have to be able to look down into their ranks and see the signs. (male officer)
- We treat our animals way better than we treat our soldiers. You see people stop for animals who have been hit, but how many times do we see

a Soldier who is mentally or physically wounded, but we walk right by them because we don't want to be the cause of them doing something rash or harming them in any way. (female NCO)

- It is hard to detect because the environment that we are in today breeds isolation. From our barracks, the closing of the chow hall, no intramurals, etc. Even organizational days, thank God they are coming back. (female officer)
- We have gotten further and further away from our leaders being on duty 24 hours a day. It's the nature of what has happened to us in the last 12 years, it is not an excuse but it is a cause. You send someone down range for 15 months and then they come home. We are the kind of Army where we are on or off now. There are a lot of soldiers who don't live on post and they go home and turn if off—kind of like they work at Wal-Mart. The ones who live in the barracks, it's not as easy to turn it off. I think it will get better as we return to a garrison environment and more will turn it on. It's natural you want to turn it off that first two or three months. My first deployment to Afghanistan was 451 days. Everyone know it's a 24-hour responsibility as leaders, but it's harder to execute based on what we have been asked to do the last couple of years. (male officer)
- The Army is not a team anymore. If you watch Nijmegen, the Americans are the only ones who start as a group and finish as individuals. (female NCO)

The third question in this section was whether or not there was a stigma associated with seeking help for BH issues. A vast majority (75 percent) of the participants answered this question positively (see Figure 18). Only one person said he did not know. During the conversation surrounding this question, some said the stigma was actually high and some said it was lower than it used to be. The positive response to this question was the majority answer across all ranks and genders.

Interestingly, some went on to elaborate that the stigma existed based on the unit type or particular leaders within a unit. When this was presented, the interviewer re-asked the question by asking if the participant thought there was a stigma associated with seeking help in some organizations, but not the Army as a whole in order to ensure the participants' response was clear.

Question 3. Is there a stigma associated with seeking help?					
Answers		Yes	No	Other	I Don't Know
Total		18	5	-	1
Rank	Officer	6	3	-	-
	Warrant Officer	2	-	-	-
	Enlisted	10	2	-	1
Gender	Male	14	3	-	1
	Female	4	2	-	-
Career	Junior	7	-	-	1
	Mid-Grade	6	2	-	-
	Senior	5	3	-	-

Figure 18. Number and Types of Responses to Whether a Stigma Exists

Participants also made the following summarized comments about the stigma:

- There is a stigma if the unit knows and it's publicized and not kept confidential. (male officer)
- When you're in a platoon, you have to bring in a slip and it says where the appointment is. That's across the Army. I feel like every step someone has to be notified. Is it fixable? I think the Army Sexual Harassment/Assault Response and Prevention (SHARP) Program has a great program that is confidential. (female NCO)
- If have gone to Behavioral Health before and was always looked down upon. They knew I was going because I had to tell them so I could get off work. (female NCO)
- I don't know if there's a stigma, people just don't like to talk about. If anything we have created a culture where it should be easier to talk about it. (male NCO)
- I think we say there is a stigma, but if there was we would be able to walk in to Behavioral Health and get an appointment instead of waiting a month. (female officer).
- Soldiers should be able to express themselves without repercussions. That's the problem with the stigma—people think it will affect their career or the higher chain of command will look down on them. (male soldier)
- Of course in the Infantry it's worse. There's no sympathy. If you have a bad day no one in your unit actually cares. It's the attitude of this job to be the best. Unless a Platoon Sergeant steps in to address it outside of work, but everyone else—it's not their job to care, it's their job make you get past that. If you're going to be Infantry you should have some extra

test when you enlist to make sure you are able to handle when something goes bad and say "I need to talk to someone," instead of wondering if you should tell your buddy. (male soldier)

- There is a stigma with reaching out to offer help, not just asking for help. (female officer)
- I've never seen anyone ask for help then have negative repercussions follow them. I've seen people move units due to problems like that but it did not affect their career. (male soldier)
- Yes there is a stigma, but its not as high as it used to be. I think we have made improvements in that area, but I'm not sure how much. Sometimes I wonder if we talk about it too much, even to the point where in many respects we have normalized. Maybe some now see suicide as an option, I'm not sure. You wonder why our numbers are still as they are with all the resources. (male officer)
- Some soldiers identify so much with the pride of their unit and the history of their unit that they are not going to allow themselves to be weak at all. It's different in the support battalions, they don't care, but not if you're Infantry or Field Artillery. (female NCO)
- Yes, especially now as we have just told our Army we are reducing by 100,000. We are looking for reasons to send people home. If you and I are average performers and you have multiple suicide issues and I don't, if you're a not like the others and you have a problem, you just volunteered to go. So some think, "I don't want to give anyone a reason to let me go. If it gets out that I have issues, I might be one of the ones that gets targeted to go home." I don't think that's true, but that's part of it. (male officer)
- The stigma is high primarily because with a person who gets to that point, there are so many other things going on (UCMJ, Chapter, PTSD, malingering). You have Company Commanders and First Sergeants who say they are just using this as a way out or crutch. That's true for some, not for everybody. (male officer)

The conclusions drawn from this section of questions are:

- The two highest needs ranked as the most important by most participants, engaged leadership and increased protection, were those focused the least on by current training programs.
- Soldiers understand what warning signs are associated with suicide, but felt the main reason they were not detected early was because soldiers did not actually detect these signs.

- Most participants felt there is a stigma associated with seeking help, but felt it is based on the organization and its leaders, not a phenomenon supported by the Army. There was not a collective answer as to whether or not the stigma could be eliminated.

2. Physical Interfaces Questions

The set of questions on the physical interfaces was an assessment of various SP messages and resources delivered via the Internet, pamphlets, manuals, and posters (see Appendix E). Of the 26 items presented, Figure 19 shows the breakdown of how many were recognized and used. The majority of participants (54 percent) were familiar with fewer than five items and 79 percent of participants knew ten or fewer of the resources presented. It is important to note those who recognized the most were officers; the only participant who was familiar with more than 20 of the resources was a female senior Human Resources officer.

Question 4. How many of the following resources have you seen and used?						
Answers (Number Identified)		0-5	6-10	11-15	16-20	20-26
Total		13	6	3	1	1
Rank	Officer	1	4	2	1	1
	Warrant Officer	2	-	-	-	-
	Enlisted	10	2	1	-	-
Gender	Male	11	5	1	1	-
	Female	2	1	2	-	1
Career	Junior	6	1	1	-	-
	Mid-Grade	4	2	1	1	-
	Senior	3	3	1	-	1

Figure 19. Number and Types of Responses to Resource Recognition

All participants concluded this section by assessing their knowledge of the program's resources as poor; this assessment was unprompted. Some even went on to say they had learned about the program just by going through the list of items. Most participants went on to say they wished they had known more.

Participants were asked to rate the usefulness of the resources they were familiar with. Figure 20 shows the breakdown of the number of resources that received each

rating. Most resources were rated as extremely useful or extremely not useful. Of those who were familiar with the fewest number of these resources, they gave "useful" ratings 47 percent of the time. Those who knew 6—10 of the resources gave almost equal numbers of "neither useful, nor not useful," "useful," and "extremely useful" ratings. Among the three people who knew between 11—15 resources, "extremely useful" ratings were given 49 percent of the time. The one individual who knew 17 resources said most of the resources were neither useful, nor not useful. The one individual who was familiar with the most gave 67 percent of the resources a "not useful at all" rating. One officer noted the ASPP website was the best site for the topic, but most generally were unfamiliar with it.

Question 5. How would you rate the usefulness of the resources you have seen and used?									
Answers			Total Recognized	Not Useful At All	Not Useful	Neither	Useful	Extremely Useful	No Opinion
Had Seen/Used 0-5 Resources (13 People)	Total		51	1	3	10	24	12	1
	Rank	Officer	5	-	-	2	2	1	-
		Warrant Officer	5	-	-	2	2	1	-
		Enlisted	41	1	3	6	20	10	1
	Gender	Male	41	1	3	8	19	9	1
		Female	10	-	-	2	5	3	-
	Career	Junior	24	1	3	5	9	5	1
		Mid-Grade	15	-	-	-	12	3	-
		Senior	12	-	-	5	3	4	-
Had Seen/Used 6-10 Resources (6 People)	Total		51	2	4	15	13	14	3
	Rank	Officer	33	2	3	10	9	9	-
		Warrant Officer	-	-	-	-	-	-	-
		Enlisted	18	-	1	5	4	5	3
	Gender	Male	42	2	3	14	11	12	-
		Female	9	-	1	1	2	2	3
	Career	Junior	9	-	-	4	2	3	-
		Mid-Grade	15	1	2	4	6	2	-
		Senior	27	1	2	7	5	9	3
Had Seen/Used 16-20 Resources (1 Person)	Total		17	-	1	8	5	3	-
	Rank	Officer	17	-	1	8	5	3	-
		Warrant Officer	-	-	-	-	-	-	-
		Enlisted	-	-	-	-	-	-	-
	Gender	Male	17	-	1	8	5	3	-
		Female	-	-	-	-	-	-	-
	Career	Junior	-	-	-	-	-	-	-
		Mid-Grade	17	-	1	8	5	3	-
		Senior	-	-	-	-	-	-	-
Had Seen/Used 21-26 Resources (1 Person)	Total		21	14	-	4	-	3	-
	Rank	Officer	21	14	-	4	-	3	-
		Warrant Officer	-	-	-	-	-	-	-
		Enlisted	-	-	-	-	-	-	-
	Gender	Male	-	-	-	-	-	-	-
		Female	21	14	-	4	-	3	-
	Career	Junior	-	-	-	-	-	-	-
		Mid-Grade	-	-	-	-	-	-	-
		Senior	21	14	-	4	-	3	-

Figure 20. Number and Types of Responses Usefulness of those Resources Recognized

Participants made the following summarized comments about the resources presented:

- There is no follow-up with the GAT. (female NCO)
- Not everyone answers the GAT honestly because its boring or doesn't apply to them. (male soldier)
- The ACE Card does not tell you what to look for, just what to do. (male soldier)

- Where does the GAT go after we take it? It's going to tell you have a problem, but no one is going to know if you have a problem. (female officer)
- There are a lot of resources here that need to be put out. A lot of soldiers are not very truthful about the GAT, but it makes them aware. (male soldier)
- The best part about the program is the "Shoulder to Shoulder" video. (male officer).

The conclusions drawn from this section are:

- Most participants were not familiar with a majority of the resources.
- The GAT was not widely accepted as effective.
- Some participants felt there were some resources that seemed to provide the same service.
- The variation of the Army's Soldier Risk Reduction Tool created by this particular unit was identified as familiar and useful by some participants, however the Army's version of this tool was not.

3. Human Interfaces Questions

This section allowed participants to assess the helpfulness of various human interfaces, to include people, medical, and religious services. The participants were asked to assess the usefulness based on their experience or that of others they know. Figure 21 shows the distribution of these answers.

The assessment given by the majority of participants for each resource was as follows (how many gave this rating is in parentheses): Spouse—Helpful (11), Other Family—Helpful (13), Friend—Extremely Helpful (13), Army BH—Extremely Helpful (11), Chaplain/church—Helpful (16), Supervisor—Helpful (14), External Source—Extremely Helpful (10), Unit ASIST—Helpful (10), Unit MRT—Helpful (9).

The only categories that received negative assessments were as follows (how many gave this rating is in parentheses): Spouse—Extremely Not Helpful (1) and Not Helpful (2), Army BH—Extremely Unhelpful (1), Other Family—Not Helpful (1), Supervisor—Not Helpful (1), External Source—Not Helpful (2). The only category that did not receive negative ratings was Chaplain/church.

During each interview, participants were asked if they could name a particular resource they knew from theirs or someone else's experience that actually worked. The responses were as follows (some gave more than two answers): Military/Army OneSource—5, Chaplains—4, engaged leaders—3, family and friends—5, telephonic hotlines—1, BH—1, MFLCs—1, ACS—1.

Participants made the following summarized comments about people and resources that provide help for those with suicidal thoughts:

- The soldiers who were talked to by Chaplain, the First Sergeant, or a mentor—someone they knew cared about them—they got better and were not behavioral issues in the unit. The soldiers who went to BH either declined or got irrational, they never got better. BH will listen to you talk, but there is not validation or problem solving skill sets that are thrown out there. It's more of a sounding board. They are not allowed to give solutions, but all the people in group therapy do. The psychiatrists, psychologists, and social workers can ask questions to help you think, but I'm not real impressed with Behavioral Health. (female NCO)
- MFLC see just as many individual soldiers now as they do families. We have an MFLC who is a trained clinical psychiatrist and is absolutely fantastic. The last one we had was like 65, so no one would talk to her. (male officer)
- The follow-on is where we have an issue and it is even more complicated if the Soldier is going to PCS. No one wants to put a flag on a Soldier to stabilize them. We put too much of a price on privacy for those who need help. (female officer)

Question 6. How helpful would you rate the following for Soldiers seeking help for suicidal thoughts?																		
Answers			Extremely Unhelpful	Unhelpful	Neither	Helpful	Extremely Helpful	No Opinion	Answers			Extremely Unhelpful	Unhelpful	Neither	Helpful	Extremely Helpful	No Opinion
Spouse	Total		1	2	2	11	7	1	Supervisor	Total		1	1	2	14	5	1
	Rank	Officer	-	2	-	4	2	1		Rank	Officer	1	-	-	8	-	-
		Warrant Officer	-	-	-	-	2	-			Warrant Officer	-	-	-	1	1	-
		Enlisted	1	-	2	7	3	-			Enlisted	-	1	2	5	4	1
	Gender	Male	1	1	2	9	4	1		Gender	Male	1	1	2	9	4	1
		Female	-	1	-	2	3	-			Female				5	1	
	Career	Junior	1	1	1	2	3			Career	Junior			1	4	2	1
		Mid-Grade			1	5	2				Mid-Grade			1	5	2	
		Senior		1		4	2	1			Senior	1	1		5	1	
Other Family	Total		-	1	3	13	7	-	External Source	Total		-	2	1	8	10	3
	Rank	Officer	-	1	-	5	3	-		Rank	Officer	-	1	1	5	2	
		Warrant Officer	-	-	-	1	1	-			Warrant Officer	-				1	1
		Enlisted	-	-	3	7	3	-			Enlisted	-	1		3	7	2
	Gender	Male	-	-	3	10	5	-		Gender	Male	-	1	1	5	8	3
		Female	-	1	-	3	2	-			Female	-	1		3	2	
	Career	Junior		1	1	3	3			Career	Junior		1		2	4	1
		Mid-Grade			1	4	3				Mid-Grade			1	2	4	1
		Senior			1	6	1				Senior		1		4	2	1
Friend	Total		-	-	1	10	13	-	Unit ASIST	Total		-	-	2	10	7	5
	Rank	Officer	-	-	-	2	7	-		Rank	Officer	-	-	2	5	2	
		Warrant Officer	-	-	-	1	1	-			Warrant Officer	-	-	-	-	1	1
		Enlisted	-	-	1	7	5	-			Enlisted	-	-	-	5	4	4
	Gender	Male	-	-	1	8	9	-		Gender	Male	-	-	2	6	6	4
		Female	-	-	-	2	4	-			Female	-	-	-	4	1	1
	Career	Junior				6	2			Career	Junior				4	2	2
		Mid-Grade				2	6				Mid-Grade		2	2	2	2	
		Senior			1	2	5				Senior				4	3	1
Army Behavioral Health	Total		1	-	2	8	11	2	Unit MRT	Total		-	-	4	9	6	5
	Rank	Officer	1	-	-	4	4	-		Rank	Officer	-	-	3	5	1	
		Warrant Officer	-	-	-	1	-	1			Warrant Officer	-	-	-	-	1	1
		Enlisted	-	-	2	3	7	1			Enlisted	-	-	1	4	4	4
	Gender	Male	-	-	-	6	10	2		Gender	Male	-	-	3	6	4	5
		Female	1	-	2	2	1	-			Female	-	-	1	3	2	-
	Career	Junior	1		1	2	3	1		Career	Junior				5	1	2
		Mid-Grade				6	2				Mid-Grade			3		3	2
		Senior			1		6	1			Senior			1	4	2	1
Chaplain/ Church	Total		-	-	-	7	16	1									
	Rank	Officer	-	-	-	3	6	-									
		Warrant Officer	-	-	-	1	1	-									
		Enlisted	-	-	-	3	9	1									
	Gender	Male	-	-	-	5	12	1									
		Female	-	-	-	2	4	-									
	Career	Junior				3	4	1									
		Mid-Grade				3	5										
		Senior				1	7										

Figure 21. Number and Type of Responses for Usefulness of Various People/Resources

As a part of this section, soldiers were asked if they knew the ASIST and MRT trained personnel in their unit. As shown in Figure 22, 58 percent of participants knew who both were in their unit, while 33 percent did not know either. The majority of those who knew neither were junior enlisted. The majority of those who knew both were senior officers; half of the female participants knew both.

Question 7. Do you know who in your unit is certified in ASIST and MRT?					
Answers		MRT & ASIST	MRT Only	ASIST Only	Neither
Total		14	2	-	8
Rank	Officer	8	-	-	1
	Warrant Officer	1	1	-	-
	Enlisted	5	1	-	7
Gender	Male	11	1	-	6
	Female	3	1	-	2
Career	Junior	3	1		4
	Mid-Grade	5	1		2
	Senior	6			2

Figure 22. Number and Types of Responses to Knowledge of Unit MRT/ASIST Personnel

The final part of this section asked participants to assess confidence in their ability to recognize and intervene if a Soldier needs help. Figure 23 shows the results for confidence in recognizing and Figure 24 shows the results for confidence in actually intervening. Half of the participants felt very confident in their ability to recognize a Soldier needed help. The second most frequently given response was somewhat confident. All but one individual felt very confident in their ability to intervene if a Soldier needed help.

Question 8. How confident are you that you can recognize a Soldier/buddy needs help in order to prevent a suicide?							
Answers		Not Confident	Somewhat Confident	Confident	Very Confident	Other	I Don't Know
Total		3	7	2	12	-	-
Rank	Officer	1	2	1	5	-	-
	Warrant Officer	1	1	-	-	-	-
	Enlisted	1	4	1	7	-	-
Gender	Male	1	6	1	9	-	-
	Female	2	1	1	3	-	-
Career	Junior		2	2	4	-	-
	Mid-Grade	2	3	-	3	-	-
	Senior	1	2	-	5	-	-

Figure 23. Number and Types of Responses to Confidence in Recognizing a Need for Help

A female NCO made the following summarized comment about intervening when a Soldier needs help: If they are not your soldiers you better not say anything. Infantry soldiers are very protective of soldiers in their squad.

Question 9. How confident are you that you would intervene if a Soldier/buddy needed help?							
Answers		Not Confident	Somewhat Confident	Confident	Very Confident	Other	I Don't Know
Total		-	-	1	23	-	-
Rank	Officer	-	-	1	12	-	-
	Warrant Officer	-	-	-	2	-	-
	Enlisted	-	-	-	9	-	-
Gender	Male	-	-	-	18	-	-
	Female	-	-	1	5	-	-
Career	Junior	-	-		8	-	-
	Mid-Grade	-	-	1	7	-	-
	Senior	-	-		8	-	-

Figure 24. Number and Types of Responses to Confidence in Intervention Ability

The conclusions drawn from this section are:

- Although there was a high level of confidence to recognize and intervene if a Soldier needed help, most felt this was only for other soldiers with which they had daily interaction or personal relationships.
- The majority of those who did not know their unit MRT or ASIST trained personnel were enlisted.
- Participants were significantly more confident in their ability to intervene if someone needed help than in their ability to identify if someone needed help.

4. System Interfaces Questions

The section on system interfaces focused on suicide prevention training. As the primary means for providing system users information on what services are available and how they can assist themselves and others, SP training is extremely important for the effectiveness of the entire system. In general, SP training guidelines and packages are pushed down from the Department of the Army and the execution of the training is dictated at the unit level. The size, media type, and training leader are the main aspects of training execution. Additionally, the Army mandates a SP Stand Down for one day in support of Army Suicide Prevention Month in September. During the Stand Down, commanders receive more specific guidance on the training to be conducted, such as themes and videos.

In response to the question on preferences for training execution, the most preferred type was discussion-based training led by a senior NCO and conducted in groups smaller than company size. As shown in Figures 25 and 26, there was little to no support for the training execution styles that most of the respondents had participated in previously. No participant preferred battalion-sized or one-on-one training. For sizes smaller than battalion, the preferences were: company—25 percent, platoon—33 percent, and squad/section 33 percent. Within the enlisted respondents, the majority preferred company sized training. Some respondents noted the importance of establishing trust if training is to generate discussion and felt in smaller groups this would be easier if the groups were homogenized for rank categories. There was one officer who had enjoyed training during which the participants were divided into groups: one for senior NCOs and one for officers.

Question 10. Which of the following group sizes do you prefer for suicide prevention training?							
Answers		Battalion	Company	Platoon	Squad/ Section	1-on-1	Other
Total		-	6	8	8	-	2
Rank	Officer	-	1	4	3	-	1
	Warrant Officer	-	-	-	2	-	-
	Enlisted	-	5	4	3	-	1
Gender	Male	-	4	6	8	-	-
	Female	-	2	2	-	-	2
Career	Junior	-	3	3	2	-	-
	Mid-Grade	-	3	3	2	-	-
	Senior	-	3	3	2	-	-

Figure 25. Number and Types of Responses to Group Size Preference

Only two of the four options for media type were selected by anyone, with 75 percent preferring discussion and 21 percent preferring videos.

Question 11. Which of the following media types do you prefer for suicide prevention training?						
Answers		Powerpoint	Online	Video	Discussion	Other
Total		-	-	5	18	1
Rank	Officer	-	-	1	7	1
	Warrant Officer	-	-	1	1	-
	Enlisted	-	-	3	10	-
Gender	Male	-	-	4	14	-
	Female	-	-	1	4	1
Career	Junior	-	-	1	6	1
	Mid-Grade	-	-	3	5	-
	Senior	-	-	1	6	1

Figure 26. Number and Types of Responses to Media Type Preference

As shown in Figure 27, none of the respondents preferred a senior officer as the training facilitator, however 46 percent preferred a senior NCO to lead the training and 21 percent preferred the Chaplain. Only the majority of Officers did not favor Senior NCOs as facilitators over the other options. No specific reasons for this came up during the discussion. Two recommendations for the "Other" category were the Army Community Services (ACS) Representative and joint instruction by the unit Commander or First Sergeant and a battalion ASIST-trained senior officer.

Question 12. Which of the following training leaders do you prefer for suicide prevention training?						
Answers		Senior Officer	Senior NCO	Commander/ First Sergeant	Chaplain	Other
Total		-	11	3	5	5
Rank	Officer	-	2	1	3	3
	Warrant Officer	-	1	1	-	-
	Enlisted	-	8	1	2	2
Gender	Male	-	8	3	4	3
	Female	-	3	-	1	2
Career	Junior	-	4	-	3	1
	Mid-Grade	-	3	2	2	1
	Senior	-	4	-	3	1

Figure 27. Number and Types of Responses to Training Facilitator Preference

Participants made the following summarized comments about training execution:

- Methods of mass training, like this online survey, are not good. There are so many that you aim to click through PowerPoint quickly. Any type of self-paced training is not effective. (female officer)
- Training should be more often, if I arrive to a unit and they did it last week that's three more quarters until I will get the training. So every quarter is better than every year. (male soldier)
- The skits work because soldiers actually put themselves in there. Watching a video, you can't beat the game. The ACE one was interactive so they played along with it. The only way to get them involved is to beat the game or put them in front of a role-playing skit. (female NCO)
- Any training that is only through AKO and a CAC is difficult at best because soldiers don't all sit down to a computer with CAC. A company may only be using two computers. Why do we continue to put online training as CAC only. Just put it on a Website or a mobile device. (male officer)

As identified in the HTA, a primary focus of the Army's SP training strategy is gatekeeper training, through the use of buddy care. When asked whether they thought training should focus more on buddy care, more on self-care, or an equal amount of both, the 50 percent of the respondents supported an equal amount of both (see Figure 28). The second most popular preference was a focus on more buddy care at 33 percent. Mid-grade participants only selected more buddy or equal amounts, while 50 percent each of junior and senior participants preferred equal amounts.

Participants made the following summarized comments about training focus topics:

- There needs to be emphasis on both (buddy care and self-care), right now it's more on buddy care because of the ACE card. That's all I see in the PowerPoint's. (male soldier)
- I am not sure you can train resiliency as well as we think we can. It's a lot more of a mental thing, it's not going to a rifle range. I think there are some people who are predisposition to be more depressed and an hour class will not fix that. They require a much deeper level of care. (male officer)
- I think there is a lot more "take care of your buddy" in the Army than "take care of yourself." (female officer)

Question 13. Should suicide prevention training focus more on buddy care, self care, or equal amounts of both?						
Answers		More Buddy	More Self	Equal	Other	I don't know
Total		8	2	12	2	-
Rank	Officer	3	1	5	-	-
	Warrant Officer	1	1	-	-	-
	Enlisted	4	-	7	2	-
Gender	Male	7	1	9	1	-
	Female	1	1	3	1	-
Career	Junior	2	-	4	1	-
	Mid-Grade	4	-	4	-	-
	Senior	1	2	4	1	-

Figure 28. Number and Type of Responses to Training Focus Preference

Finally, the interviewer asked respondents to give an assessment of SP Stand Downs. Figure 29 shows half of the respondents' answers indicated the Stand Downs were below standard. Conversely, 38 percent felt the training met the standard. This assessment was further analyzed to identify those who felt Stand Downs met the standard, but went on to identify ways the Stand Downs could be improved; 21 percent said the training met the standard but could be better and 17 percent said the training met the standard as is. There were three respondents (13 percent) who said they did not know. Out of all the discussion on Stand Downs, four participants said it was a reason to get off work early, three described them as "check the block," and two said it was "death by PowerPoint."

Question 14. What is your assessment of Suicide Prevention Stand Downs?						
Answers		Below Standard	Could be Better	Meets Standard	Exceeds Standard	I don't know
Total		12	5	4	-	3
Rank	Officer	4	2	3	-	-
	Warrant Officer	2	-	-	-	-
	Enlisted	6	3	1	-	3
Gender	Male	9	4	2	-	3
	Female	3	1	2	-	-
Career	Junior	4		1		3
	Mid-Grade	4	4			
	Senior	4	1	3		

Figure 29. Number and Types of Responses for SP Stand Down Assessment

Participants made the following summarized comments about SP Stand Downs:

- Every day should be Stand Down Day, leaders need to know their soldiers. (male officer)
- If you have an engaged Squad Leader and Platoon Leader who care, you don't need Stand Down Day. Physical training, the range, that's teaching resiliency by making soldiers who are mentally tough and spiritual. You see some units where soldiers have more issues than others and that is a direct reflection of the leadership. (male officer)
- As long as it does not turned into a check the block session it can be effective. Sitting in the auditorium for two hours is not effective. Bring in people who have been in the situation and have prior experience dealing with suicide and do scenarios. (male NCO)
- Stand Downs can be effective, most people think they don't have to go to work, but that's not what it is. It could be a couple of days, more individualized, and smaller training sizes. The big group doesn't hurt and you catch everybody at one time. (male soldier)
- I know very little about it; the last one apparently didn't stick out. (Male NCO)
- I think it should happen more often, twice a year. (male NCO)
- If there is going to be a class it should be step-by-step signs of what people show when they are thinking about suicide. Most of the classes, they talk about what you should do not what to look for. For most people it's kind of common sense what to do, but not what to look for. (male soldier)
- I liked it. There was the grumble, but I thought it showed this is truly a priority to the Army. The method of training I was in they had a speaker

and videos, I think we got an entire brigade in the auditorium. From there we broke down into smaller groups, with the people I interacted with every day. (female officer)

- The best training I had was a Chaplain who started the training in civilians, he told us his name, talked to us to get our thoughts, like a sensing session. Then after the break he came back in uniform and introduced himself as the Chaplain. It was nice because you knew he had the power to take what you said somewhere and he got candid thoughts. (female NCO)
- That one day doesn't make a difference, what's going to happen in that day? Classes all day long. I can understand if suicides have happened a lot, like we do for safety when there have been two or three accidents in a month. But it's just check the block to me, death by PowerPoint. I like training within the section rather than auditorium because you get nothing out of it. I don't know if we can make it better; it irritates me. (male soldier)
- It should be done more often, maybe quarterly. There's always time, we have time to go to lunch. It could take five or 10 minutes. Equal Opportunity is done every quarter, so why not suicide prevention if its just as important. (male NCO)

The conclusions drawn from this section of questions are:

- Although they understand more personnel can be trained at once in larger groups, soldiers prefer smaller groups for training in order to facilitate better discussion and increase trust within the group.
- Soldiers prefer discussion to the common way of delivering training using PowerPoint and videos.
- Soldiers prefer having a senior NCO or the Chaplain lead the training, as opposed to a senior officer.
- The current focus on buddy care for SP training is widely accepted, but some feel there should be just as much focus on self-care.
- Most respondents did not feel Suicide Prevention Stand Downs were valuable.

5. Overall System Effectiveness Questions

The final section of questions was on the overall effectiveness of the system. Soldiers were asked to describe the process it takes to get a Soldier help and then assess if they felt the process was effective or needed improvement. They were also asked to

share their opinions on the best and weakest parts of the program. The majority of respondents (75 percent) said the process was effective (see Figure 30).

Question 15. How would you describe the process used to get Soldiers help?					
Answers		Could Be Improved	Effective	Other	I Don't Know
Total		6	18	-	-
Rank	Officer	3	6	-	-
	Warrant Officer	1	1	-	-
	Enlisted	2	11	-	-
Gender	Male	4	14	-	-
	Female	2	4	-	-
Career	Junior	2	6	-	-
	Mid-Grade	1	7	-	-
	Senior	3	5	-	-

Figure 30. Number and Types of Responses to Assessment of the Process to Get Help

The participants were asked to describe how they would go about getting the Soldier help. As they described the process, the interviewer made note of which resources the participants said they would use and in what order. Parts of the process that were or were not preferred were also identified. Figure 31 diagrams the responses to this question, showing how many people listed a resource and in what order. The connectors in bold are the resources identified most often and the connectors underlined are the resources some participants felt could be improved or eliminated. The Chaplain/church was most often referenced, while the Spouse or Other Family was not referenced at all for this question. Three participants said the follow-up should be improved. Two participants said buddy watch should be eliminated.

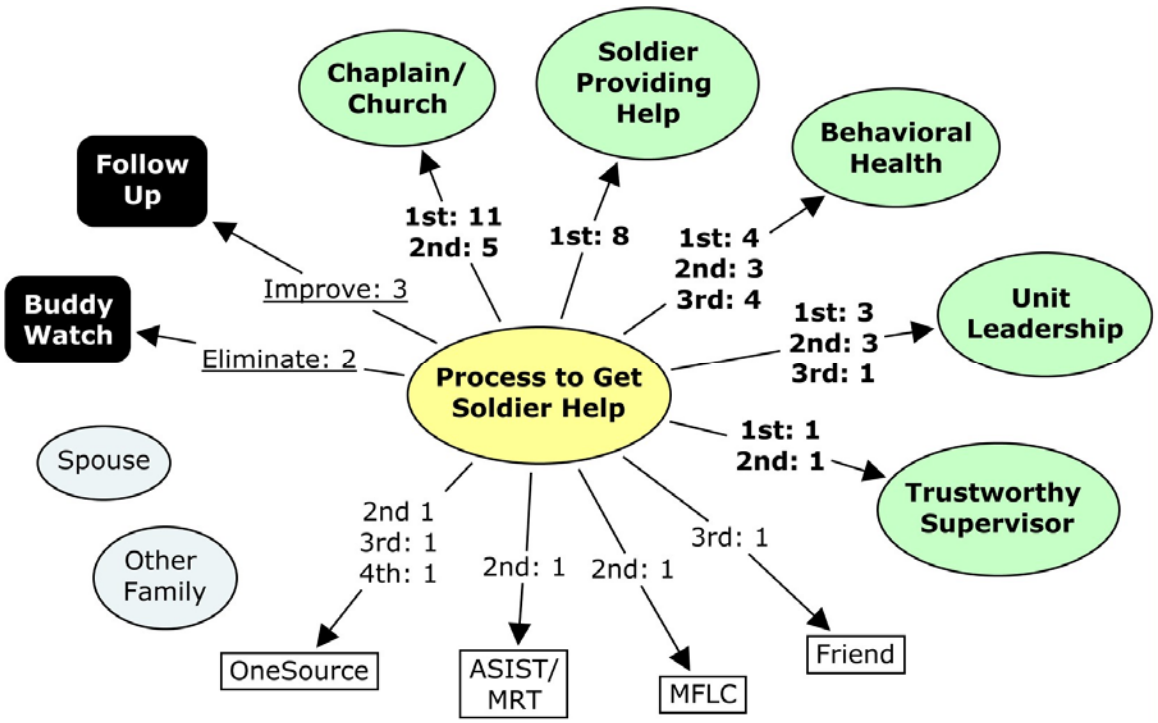

Figure 31. Description of the Process to Get a Soldier Help

It is important to note BH included the providers embedded at the units. A female NCO noted: I get that there are numbers to call, but it is a lot more personal when they are at your brigade and they care. The way I understand the system, I have to go to sick call and tell a Physician's Assistant I am suicidal before I can just go into BH.

Figures 32 and 33 show the distribution of the responses for the best and weakest parts of the ASPP. The responses for the best part of the program included the overall awareness and attention given to the issue, the number of resources available, and confidentiality. Of those three, overall awareness was cited by 58 percent of those who participated. The next most popular answer for best part of the program was the number of resources available, which was given by 17 percent of the participants. One person said the confidential nature of the services was the best part.

Half of the respondents said the training needed the most improvement. Only eight percent said stigma reduction needed the most improvement. For both questions, some gave other responses or did not have an answer.

Question 16. What is the best part about the ASPP?						
Answers		Overall Awareness	Resources Available	Confidentiality	Other	I Don't Know
Total		14	4	1	2	3
Rank	Officer	5	1	1	2	-
	Warrant Officer	2	-	-	-	-
	Enlisted	7	3	-	-	3
Gender	Male	10	3	1	2	2
	Female	4	1	-	-	1
Career	Junior	4	3	-	-	1
	Mid-Grade	4	-	1	1	2
	Senior	5	1	-	1	-

Figure 32. Number and Types of Responses to the Best Part of the ASPP

Question 17. What part of the ASPP that needs the most improvement?						
Answers		Training	Stigma	None	Other	I Don't Know
Total		12	2	1	5	4
Rank	Officer	6	-	-	2	1
	Warrant Officer	1	-	-	-	1
	Enlisted	5	2	1	3	2
Gender	Male	9	2	1	2	4
	Female	3	-	-	3	-
Career	Junior	5	-	1	1	1
	Mid-Grade	1	2	-	2	3
	Senior	6	-	-	2	-

Figure 33. Number and Types of Responses to ASPP Improvement Areas

Participants made the following summarized comments about the overall functionality of the system:

- We have everything we need; it's just a matter of tapping into those resources for the people who have problems. It's a matter of them taking the step to identify they have a problem and need help. (male officer)
- We should have leader development trips for all the officers, Lieutenants and above. Sit down with them in civilian clothing with stats, numbers, charts, spreadsheets, and the trends and where the leadership was when it occurred. Let them realize what their peers are doing and what's working and what's not across the Army and in their units. That way they realize they are either part of the solution or part of the problem. In general, its not that they don't care, but the fear of taking a step and doing the wrong thing. (female NCO)

- During the ASIST class, the statistics used were from 2007. This information is no longer relevant. The units should get more timely feedback on DoDSER data. We should be able to provide relevant and timely data and analysis of info quarterly. We should not be talking about suicides from over a year ago. (female officer)
- Senior NCOs need to swallow their pride and realize that some people do need help. The NCOs who actually do help you have been through the same thing. You can be a man to a point, but being a better man is to swallow your pride and say "I need help." (male soldier)
- The best part about the program is inpatient and embedded BH. The unit psychiatrists are actually in the formation doing PT and they can tell when something is wrong, whereas most of us are too busy to notice. (female officer)
- The best part about the program is having ASIST for those who are not Behavioral Health professionals. Ideally, you have Behavioral Health at every battalion but that's not possible. There's not enough access or professionals at the lower level and the specialized training supplements that. It's like with the Medics—there's not enough to take care of all the casualties, so we train medical extenders like Combat Life Savers. They might not be able to fix everything, nor should they have to, but they should be able to identify risk factors, signs, and symptoms; stabilize what they can through ACE; and realize the limits of their capabilities and get soldiers to care. (male officer)

The conclusions drawn from this section of questions are:

- There is overwhelming support for improving the program among those interviewed. The majority of the negative comments about the program are culturally or organizationally based.
- SP training garnered more negative feedback than resource availability and confidentiality issues.
- Most felt the stigma associated with getting help has to be addressed by the leadership within an organization or the program will continue to have issues.
- Soldiers appreciate the level of effort the Army has put into addressing suicide as an issue; some feel these efforts are the best they can be considering the nature of the problem and some feel the efforts could be more streamlined.
- Those with institutional knowledge and experience with the ASIST training package feel the Army should reassess the cost and relevance of the training.

D. DISCUSSION

For each section of interview questions, the researcher was able to draw general conclusions on the different interfaces within the ASPP system. Those conclusions were used to answer the four research questions posed in Chapter II:

- Is there a mismatch between the resources offered by the ASPP system and the needs of the soldiers who use the system?
- Does the assessment of ASPP system vary between those who have previous experience with suicide and those who do not?
- Is there a difference in system assessments between soldiers of different genders and rank categories?
- Does the stigma associated with help-seeking behavior contribute to risk-taking behavior?

Based on the data collected, the research team could only draw conclusions about the first and fourth research questions, which are further explained in the following sections. Due to the low sample size and distribution of answers, we could not conclude the assessments of the ASPP system significantly varied between those with different ranks, genders, and experience with suicide. A recent article on military SP from the Archives of Suicide Research by the International Academy for Suicide Research is noteworthy for inclusion in this discussion. For each of the topics detailed in the next sections, insights from this article serve to reiterate those previously mentioned in Chapter II and the inferences made by the researcher.

1. Mismatches between System Resources and User Needs

The lack of conducting a systematic user needs assessment prior to the implementation of the ASPP system was a major indicator that the first research question would produce system mismatches. This prediction was confirmed and the research team determined there were mismatches between the system resources and the user needs. A mismatch existed when there was a noted incongruence between the needs identified during research and the intended system construct, both outlined in Chapter II. Reviewing the conclusions for each section of interview questions, these mismatches were translated into four system gaps:

a. Training Focus and Format Imbalanced

The needs users felt were most important (engaged leadership and increased protection) and those needs primarily focused on in training (buddy care and risk reduction) were incongruent. Background documents establish the four needs associated with SP, but the program's training focuses on only two of these. Users felt the training format was ineffective as it is normally presented. Soldiers do not prefer the format commonly used for training; the use of large groups and PowerPoint decreases engagement by participants.

Bryan et al. (2012) provide a similar explanation for the mismatch in training focus:

> Unfortunately, many existing prevention efforts within the military training emphasize signs and symptoms of combat stress, PTSD, depression, and suicide and encourage the accessing of tertiary care in order to manage these. Basic principles of psychology are rarely used to teach service members how to appraise their…experiences as a source of growth, or to enhance quality of life on a daily basis. Basic psychological skills training should therefore be injected to foster hardiness and self-enhancement. 'Suicide Prevention' should therefore be re-conceptualized not just as avoiding death, but also rather as promoting health and quality of life. (pp. 103—104)

With respect to training format, "the most widely used method for suicide awareness education—written lists of warning signs—might not be our most effective approach" (Bryan, et al., 2012, p. 105). Clearly, adjusting the training focus and diversifying training methods would be supported by this research.

b. Buddy Care Limited and Unabated by Self-Care

The system relies heavily upon the buddy system as a resource, but does not ensure this resource is actually provided and used. Adequate risk detection training is provided but inadequate risk detection occurs, which explains soldiers' higher level of confidence in recognizing another soldier needs help, and less confidence in actually engaging to get them help. Soldier-to-Soldier interaction is not as high as it could be and

Soldier-to-Leader interaction may be strained; both issues are exacerbated by a culture of isolation. Most felt self-care is equally important as buddy care, but not fully integrated as a part of the ASPP system.

Here, the juxtaposition between buddy care and self-care challenges one to appreciate the value of both and also understand the military culture emphasizes one over the other, due in part to the responsibility associated with military service. Bryan et al. (2012) explain:

> Service members who are unable to make rapid decisions to solve problems on their own are generally considered to be substandard. Being unable to fix one's problems therefore poses another threat to the service member's identity; asking for assistance from others violates the military culture's expectation of self-reliance. Service members can thus become trapped within their cultural identity, unable to generate the solutions needed to dislodge themselves from their situation. This trapped position is compounded by the problem-solving deterioration that commonly occurs during periods of emotional distress, particularly during suicidal episodes. (p. 100)

If soldiers are not provided a program that clearly stresses the need to balance between these two forms of care, this type of cultural barrier may continue to overshadow the program's successes in other areas.

c. Stigma Continues to Increase Needs and Decrease Use of Resources

Destigmatization efforts are inadequate at the user level. The need for engaged leadership and increased protection implies a level of trust and confidentiality that currently some feel does not exist, both with leaders and fellow soldiers. Military culture and individual biases facilitate stigma at the unit level, which can decrease use of all system resources. Further, since buddy care is the primary focus of strategic communications, the lack of emphasis on self-care could further decrease an individual's ability and/or likeliness to self-treat.

Another viewpoint of the stigma views it as the outgrowth of the system, not just a contributor to the issues therein:

> Ironically, the structure and design of the mental health system can inadvertently serve as a barrier to help-seeking, since mental health services are commonly located in medical settings that are geographically separated from military units, which can reinforce a deficiency-based perspective of mental health that conflicts with the service member's identity of strength, hardiness, and elitism. Mental health services are typically offered during hours that run concurrent with military training and duty schedules, thus requiring personnel to leave their unit when it is most obvious to their peers. Military suicide prevention efforts therefore need to recognize that traditional, clinical-based care is insufficient itself for meeting the needs of the military, and should consider non-traditional methods for engaging service members 'on their turf.' (Bryan, et al., 2012, pp. 99—100)

d. Awareness of Resources Limited

Most users surveyed were widely unaware of the SP resources presented. Some were also limited in their knowledge of how ASIST and MRT certified personnel could assist and who they are. Of the wide range of resources offered by the system, users not in applicable job fields may be unaware of the depth and breadth of resources. This shows an obvious disconnect between the system resources and user needs. A more simplified view of this problem is the reality that the average junior soldier demographic (whom the Army places extreme emphasis on recognizing as high-risk) may have limited knowledge of the ASPP system human and medical resources, a lack of trust in the confidentiality of the system, and leaders or buddies who are not engaged enough to recognize a possible emergency situation. In this "worst-case scenario," he or she may turn to the Internet for guidance and be unsure of where to begin to search for information.

Although the level of mobile-Web access is high for most individuals and there are posters and cards distributed with ASPP information, knowledge of resources has to become second nature across the board in order to address this gap. Many referenced Army OneSource as a resource they knew succeeded in helping to prevent a suicide; this service is preferred and well known due to its availability and simplicity. Applying the strategic, military approach to the dissemination of resources is key. Although Bryan et al. discuss this in terms of SP strategies, it can also be said that SP resources should "be specific, concrete, and action-oriented….service members should be

told what to do and when to do it, and (critically) be shown *how* to do it" (Bryan, et al., 2012, pp. 1). Resources must be properly advertised, easy to access, and should be given the necessary attention for hands-on familiarization during training (particularly if they are electronic).

2. Previous Experience with Suicide

There were no predictions on differences in user assessments based on levels of previous experience with suicide. The sample was not large enough to determine a significant difference between the respondents' answers. Despite not being able to draw clear parallels between previous experiences with suicide and system assessments, it was evident that personal experience made some participants more aware of the topics.

3. Rank and Gender Differences

The research team predicted there would be less favorable assessments from those with higher ranks due to the system's focus on buddy aid. As previously explained, both higher and lower ranks provided positive and negative assessments of different aspects of the program. Participants with higher rank had more developed opinions about resourcing the system and the usefulness of physical interfaces, while those with lower rank had more developed opinions about the stigma and training. The sample was not large enough to determine a significant difference between the respondents' answers based on these demographics, however general differences in frequency of responses were detailed in the previous sections of this Chapter.

4. Stigma Continues to Increase Needs and Decrease Use of Resources

The research team predicted the existence of a stigma would minimize use of the system, and therefore contribute to risk-taking behavior. Higher levels of trust between users and implementing controls for confidentiality into the system should result in decreasing the stigma. Some would argue the increased publicizing of high suicide rates in the military decreases the stigma associated with help-seeking behavior, while others would counter this increase influences others to consider suicide as an option. On the one hand, simply talking about suicide decreases stigma (County of San Diego Health and

Human Services Agency (HHSA), 2011). There was overwhelming support for the existence of a stigma and the opinion that this stigma impedes some from seeking help.

E. SUMMARY

All feedback gathered provides a clear picture of the user's system assessment for this particular sample within the unit identified. HSI analyses must relate feedback to each of the HSI domains in order to show which domains are most influenced by system inefficiencies and ultimately determine where to conduct tradeoffs if system re-design occurs. Table 4 shows how each of the four gaps identified relate to the HSI domains explained in Chapter I. All HSI Domains apply to Gaps 1 and 4, identified in red.

Table 4. Mapping Gaps Identified to HSI Domains

Gaps Identified		Applicable HSI Domain						
		M	P	T	HFE	SS	HH	SSy
1	Training Focus Imbalanced and Format Ineffective	✔	✔	✔	✔	✔	✔	✔
2	Buddy Care Limited and Unabated by Self-Care			✔		✔	✔	✔
3	Stigma Continues to Increase Needs and Decrease Use of Resources			✔		✔	✔	✔
4	Awareness of Resources Limited	✔	✔	✔	✔	✔	✔	✔

Manpower and Personnel domains only applied to Gaps 1 and 4. The balance between Manpower constraints and Personnel KSAs is a regular tradeoff in HSI. In the case of these gaps, there must be consideration for the number and type of personnel selected to facilitate and conduct training, specifically unit SP training and ASIST/MRT certification. Training exists as a factor in each gap, therefore this domain applies to all gaps identified. Human Factors Engineering applies to Gaps 1 and 4 as a result of the dependence on automation and Web-based systems for training and dissemination of SP resources. Increased stress on the users due to Gaps 2 and 3 is the primary Health Hazard concern. Due to the possible outcomes if suicide events are not prevented, all gaps have Safety and Soldier Survivability implications.

The diversity of backgrounds and opinions on the topics presented during the interviews was noteworthy. Even more telling, 10 of the participants gave vivid, unprompted accounts of their experiences dealing with soldiers who were suicidal. Participants translated their experiences with the ASPP system into specific recommendations for improvements in the areas they felt were most lacking in the ASPP. They also provided positive assessments of the system as well, mainly noting the amount of attention given to the topic to be noteworthy. The final Chapter will propose recommendations for improvement of the ASPP and future research.

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VI. CONCLUSIONS AND RECOMMENDATIONS

This study was conducted to address the problem of consistently higher rates of Army suicides when compared to other services, despite the efforts being taken to provide resources to soldiers. This research is important because of the apparent absence of feedback from soldiers on why they feel the problem persists. In their recent article, Bryan et al. present the idea that "the limited success of interventions to date hinges on inherent limitations in the philosophy upon which they are based" (2012, p. 96). Without this type of user-based research, the Army may continue to fund solutions that are not optimal for soldiers.

Decreasing military contingency operations and returning to a garrison-focused force will allow soldiers time to get the help they need. The current fiscal situation within the DoD adds an extra level of complexity to the system. If resources continue to be limited and the number of soldiers who need to use the system increases, we have to be able to eliminate what does not work and focus on what does. This chapter will review the OV model developed for this study, present recommendations for improvement of the ASPP system, and recommend areas for future research.

A. ASPP SYSTEM OV MODEL CONCLUSION

It is important to reiterate that due to the aforementioned limitations of this study, these conclusions are based on the assessment of unit's SP program structure and execution as identified by participants and leaders on the ground. The conclusions presented aim to demonstrate how the gaps and issues identified by the first and fourth research questions fit into the overall system construct.

Two systemic issues were identified throughout the course of the unit engagement that have not been detailed in previous sections. First, providing more cross-talk and collaboration between uniformed unit leadership and the Army BH system is vital to increasing trust at the user level and decreasing barriers to services. The Army views the key to the prevention of suicide as "positive leadership and deep concern by supervisors

of military personnel and DA civilian employees who are at increased risk of suicide" (U.S. Army, 2010, pg. 2). Figure 34 shows how the synchronization of this leadership should ensure prevention measures at all levels.

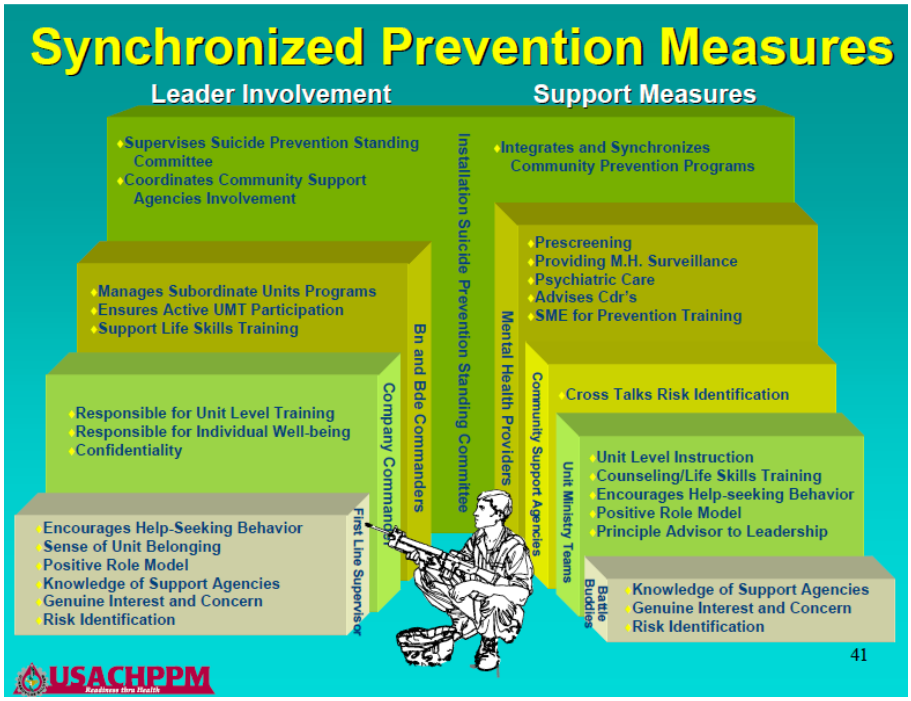

Figure 34. Synchronized Prevention Measures (From USACHPPM Gatekeeper Training, n.d., p. 41)

The SPPM interviewed for this analysis coined the phrase "selective enforcement" to describe her perspective of the execution of the SPTF as a "feeder" into the CHPC. This assessment is different from the intent outlined in the AR and DA PAM. Scott identified the "fundamental need of the CHPC is active participation from the council members as well as cooperation among the stakeholders" (Scott, 2012, p. 40). The uniqueness of this unit's program makes this assessment interesting and explains how their program is still successful despite the lack of a unity of effort within the CHPC.

The SPPM makes it clear that the Fusion Cell has not replaced the SPTF or CHPC. Based on the information gathered from multiple perspectives, the researcher feels the Fusion Cell has a more visible role at the unit level than the SPTF or CHPC and is unclear whether this is the intent of the policies governing SP efforts at the installation

and unit levels. The researcher assesses the level of collaboration in this unit is greatly enhanced by the use of embedded BH professionals and the Fusion Cell. The responses to questions on collaboration in a unit not as resourced could have produced different findings. Any efforts that eliminate redundancy and ensure the leadership on both sides of the system gets the information, processes, and feedback necessary to track and minimize soldier risks should be noted as best practices. Other installations should be aware that the use of this Fusion Cell model could increase collaboration between unit leaders and medical staffs; the addition of more embedded BH professionals could further enhance this collaboration. In areas that have the ability and need, the model should be replicated. Attention should also be given to strengthen collaboration between medical care teams and units leaders on determining when soldiers need in-patient care and when such care is not justified.

Second, senior management should address the lack of a feedback loop between the ASPP and units with respect to current and applicable suicide statistics. The units are required to submit data to higher authorities, but aside from the DoDSER annual reports, there is not a reciprocal dissemination of information back to the units that presents analysis they may be able to use to guide their programs and training. Having an understanding of what statistical trends existed at a given installation over the course of a year or what trends have been identified across the Army in the course of a month are just two examples of information that could be disseminated to Company Commanders and First Sergeants to improve their awareness, detection, training, and prevention efforts. Senior leaders at the division level should be able to review suicide data and feedback from external agencies in a manner that is timely; in some instances feedback on suicide cases is over a year old. There was also a general consensus between the SPPM and leaders that the ASIST training is expensive and at times hard to complete due to limitations. Furthermore, the training is conducted using Army suicide data that is, in some cases, over six years old. Improving the feedback loop between the units, the SPPM, and ASPP Program Office could address some of these issues.

The third overall conclusion about the system has been previously detailed. Despite a high level of awareness of the program, users' feelings towards training and

resource information grossly impacted the program's reputation within this sample. The system and physical interfaces received the most negative feedback, with soldiers feeling the training offered could be better and the communication about what resources are available could be more streamlined. System drawbacks outweighed successes with respect to training. An innovative system interface the unit is considering is the addition of SP training during each Soldier's in-processing. If implemented at the installation level, this would ensure individuals arrive to their units having their training completed and aware of the services offered as soon as they arrive to post. Although this would require more coordination between servicing agencies and unit leadership, as previously noted stress may be higher during transitional periods. In summary, soldiers understand the Army is making a dedicated and concerted effort in the operation of the ASPP, but the view that the most significant changes should be made in the area of training was repeated constantly.

The OV model presented in Figure 11 was determined to be a valid representation of how the Prevention Activities of the ASPP are structured, however there were differences between the system in theory and how it functions in this unit. In order to increase system effectiveness, this study concluded there were areas that should be continued due to their success, areas that need improvements, those that should be eliminated, and some that should be considered for new additions to the system. These areas are diagrammed in the modified ASPP system OV model in Figure 35 and detailed in Table 5.

The modified OV model presents the original OV model with adjustments to the tasks associated with the requirements for each of the five roles: senior program management, the installation CHPC/SPTF/SPPM, unit leaders, buddies, and soldiers. Although the majority of the tasks listed in the original model are presented here as well, some were added due to their importance and the amount of discussion that was given to the task during the interviews. One example of such an addition is the requirement for all soldiers to complete the Global Assessment Tool (GAT) annually.

The conclusions drawn on the strengths and weaknesses of the system tasks determined the need to code the tasks on the modified model. Their associated meanings

are as follows: areas with asterisks should be sustained as best practices, areas in red should be improved, areas in strikethrough font should be eliminated, and areas in green should be considered for additions to the system.

As an example of how to read and understand the modified model, the research team concluded that of the eight tasks associated with the buddy role, four should be examined. The buddy's role is to encourage appropriate responses in order to assist in suicide prevention, and in general, buddies will intervene to provide assistance using the ACE gatekeeper model. The participants' ability to reference and speak confidently on ACE was worth noting. However the buddy's ability to detect those at risk in order to provide this assistance should be improved. For the reasons previously mentioned, soldiers were not as confident in their detection abilities, although most were aware of the warning signs discussed in SP training. Additionally, buddies continue to facilitate the destigmatization efforts within their organizations. The use of the buddy watch system should be eliminated, primarily due to its contribution to the stigma and minimization of trust and confidentiality for those who may be suicidal. There were no additional tasks identified for the buddy role.

Figure 35. Modified ASPP System OV Model

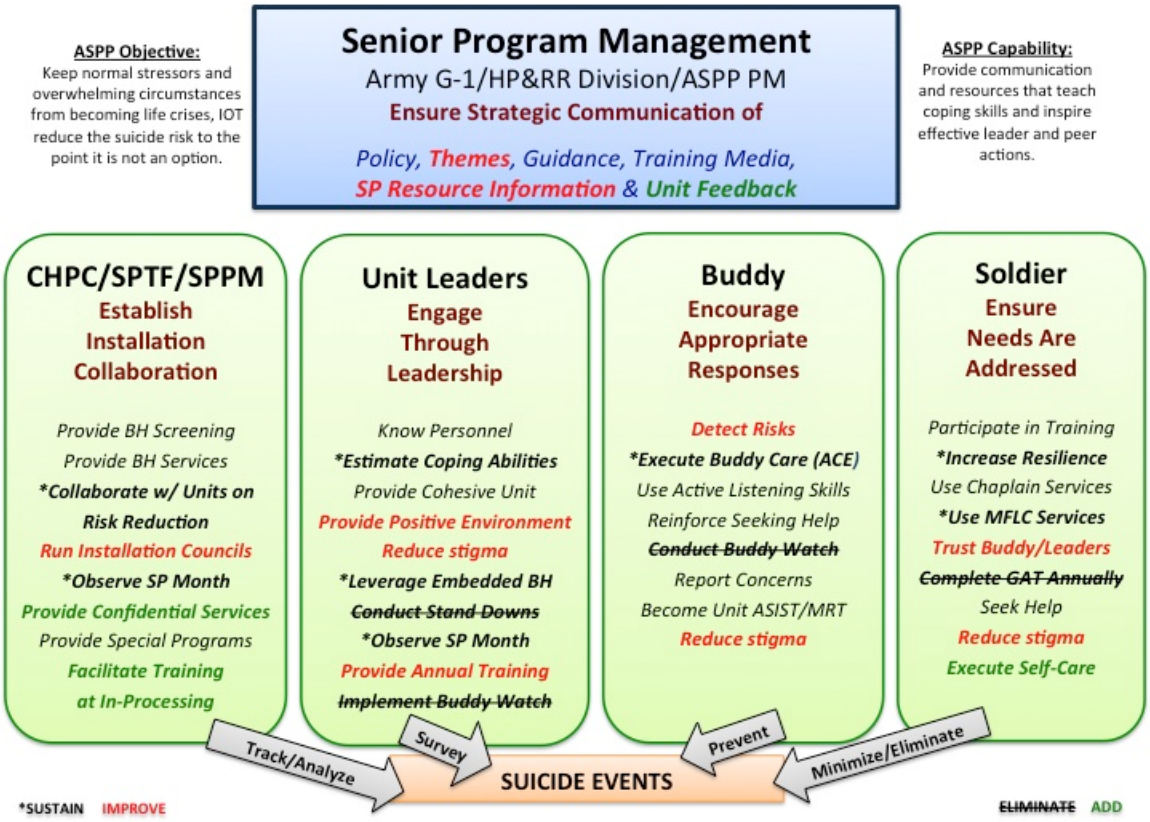

Table 5. Description of Modified ASPP System OV Model

	ASPP Program Office	CHPC/SPTF/SPPM	Unit Leaders	Buddy	Soldier
Sustain	- Training Media (Interactive Videos)	- Observe SP Month (Providing Assistance w/ Units Programs) - Collaboration on Risk Reduction (via Fusion Cell)	- Use Embedded BH Providers (If available) - Observe SP Month (Develop Program throughout the Month) - Estimate Coping Abilities (Using Unit's Risk Eval. Tool)	- Buddy Care (Intervene to Prevent Suicides)	- Increase Resilience (Use MRT Skills) - Use MFL Services (If available)
Improve	- Program Theme (Equal Emphasis on Self-Care/Buddy Care and Life Preservation/ Suicide Prevention) - Information on User Resources (ASPP Website & ACE Card Usability, Remove CAC-Only Resources)	- General Participation in CHPC Council Meetings	- Positive Environment (More Confidentiality; Eliminate Requirement to Show BH Appointments) - Reduce Stigma (Set the Example) - Training (Media, Size, and Facilitators)	- Risk Detection (Minimize Isolation and Maximize Awareness of Others) - Reduce Stigma (Set the Example)	Trust in Buddy/ Leaders (Increase Communication)
Eliminate			- Stand Down Day (Units determine training times during SP Month) - Buddy Watch	- Buddy Watch	- GAT
Add	- Unit Feedback (Timely Trend Analysis)	- Provide Fully Confidential Services (After-Hours, Walk-In, etc.) - Facilitate Training New Soldiers (During Installation In-Processing)			- Improve Self-Care (Seek Assistance, Increase Protective Factors)

B. RECOMMENDATIONS FOR THE ASPP SYSTEM

From a system perspective, success may be best measured by eliminating all barriers between the users and the system. From an HSI perspective, increasing total system performance should be the primary objective. This section will cover some general recommendations for consideration, as well as provide specific recommendations and how to measure their effectiveness.

At the outset of any improvement efforts, the Army should first conduct a systematic needs assessment to determine what soldiers' needs are and their assessment of whether those needs are being met. The San Diego Suicide Prevention Action Plan 2011 Needs Assessment used a series of interviews with providers and patients to determine the needs of their population. The research team defines a successful system of suicide prevention as one where are designed to meet the needs of individuals of all

ages and from diverse backgrounds (County of San Diego HHSA, 2011). Conducting a needs assessment is a basic task normally accomplished at the outset of the system design process; this is particularly important for system training. ASPP system modification should not be initiated without a needs assessment to gauge what stakeholders understand about the system, what their training deficiencies are, and whether individual and organizational goals are being met.

The goal of the San Diego County needs assessment was to examine assets and gaps in the current SP services by examining the following components: 1) knowledge regarding SP and training needs, 2) existing services, 3) barriers to services, 4) agency coordination, and 5) gaps (County of San Diego HHSA, 2011, p. 45). Table 6 summarizes the questions asked in three of the surveys used in this assessment.

Table 6. San Diego County Needs Assessment Focus Areas (From County of San Diego HHSA, 2011, pp. 17, 45, 56)

Community Provider Survey
Knowledge of risk factors *Perceptions of suicide* *Confidence in ability to address suicide for their target population*
Training Needs Survey
Recognition of suicide risk factors *Identification of statements regarding suicide* *Confidence in addressing suicide risk*
Levels of Agency Collaboration Survey
No interaction: not aware of this organization, not currently involved in any way *Networking: loosely defined roles, little communication, no shared decision making* *Cooperation: provide information to each other, somewhat defined roles, formal communication* *Coordination: share information, defined roles, frequent communication, some shared decision making* *Collaboration: share ideas, share resources, frequent and prioritized communication, decisions are made collaboratively*

The results of this assessment showed, among other conclusions, five most noted sources of barriers to SP services: stigma, lack of available/appropriate services, insufficient follow-up care, limited access to services, and staffing issues (County of San Diego HHSA, 2011, pp. 71—72). There were also particular conclusions drawn about providing services to the San Diego Veterans population. The design of this needs

assessment was well planned and executed, providing an example that can easily be emulated for the ASPP system.

Equally important to assessing user needs is understanding the dynamics of suicide within military populations and as operations change within the Army. In recommending a different approach to suicide prevention, Mastroianni and Scott (2011) cite the need for a focus on the influence of military culture on these instances of suicide. If belongingness and burdensomeness in soldiers more likely to have practiced or considered suicide can lead to a suicidal event, assessments for burdensomeness and belongingness should be included in risk assessments. Measuring belongingness can include assessing the disruption of social belonging caused during military transitions, such as returning from a deployment or changing duty stations (Mastroianni & Scott, 2011). Given the possible differences between personal beliefs and military culture, assessing burdensomeness should include considering a Soldier's capacity "to meaningfully interpret their experiences in the military service" (Mastroianni & Scott, 2011, p. 18). These ideas support the opinion of one participant that the issue of suicide differs between those with experience in Iraq and those with experience in Afghanistan, given the significant differences between these two conflicts.

Although the continuous transitions and societal factors cast a shadow on military culture, it is important to note the camaraderie and team aspects that are a part of the military can be used to benefit the ASPP. One observer noted the success of a peer gatekeeper program in one unit's BH advocate initiative, where the advocate was liaised between "command and support services, providing an early warning system on issues, attitudes, and behaviors within the unit, which may increase barriers to seeking help. Further, they ensured distribution of lessons learned from prior events even after inevitable transitions of organizational leadership" (Warner et al., 2011, pp. 134—135).

Third, this research depended heavily on the use of the ASPP Website to conduct electronic research, generate the survey question booklet, and provide others a source for seeking additional information. Only two personnel interviewed were familiar enough with the Website to be able to discuss its usefulness, but most others made general comments about frustrations with Army Web-based products (such as training) in

general. In addition to general HFE considerations, some recommendations for the ASPP Website made over the course of this study include: separating monthly suicide statistics from the "Resources" section, providing basic information on the resources advertised on each page, and (as the main platform for the ASPP) the Program Office should consider conducting a usability study on the site during the next phase of updates.

Other specific recommendations for improvements and supporting comments made by users are as follows:

1. **Increase focus on protective factors and engaged leadership during training and strategic communications:**
    a. Self-resiliency is very important, by increasing that soldiers become more resilient and can care for others too. Suicide Prevention and Resilience programs should be combined, they make it seem like it's a separate problem but I think they are tied. It should be the goal to create more ready and resilient soldiers AND prevent them from committing suicide. (female officer)
    b. An easy button for to improve the program? Puppies. Make people happy. Everybody needs a puppy. I would enjoy my time in the military a lot more if I had a puppy. Not having a pet is especially hard if you're used to having more space and a pet before you joined the Army. I'm in the barracks in a little room. People joke they are going to get married just so I can move off post and get a pet. I would be at an animal shelter every day if we had one on post. (male soldier)
2. **Reinforce the Army Team concept:**
    a. We are isolated in society. I live on post and there's mixing, off-post the rule rather than the exception is you go home and come out when you got to work, there's not that interaction. I have no idea what the percentage is, but it's a safe bet most senior leaders live off post and that's not the way it used to be. In my opinion if you're in a command position you need to live on post because that's where your soldiers are—at least the ones who tend to get in more trouble. (male officer)
    b. I think the best training is whenever you get personal stories involved. I have only really experienced them being delivered via video, but I think hearing from other people in the unit "I know someone who has dealt with suicide," sharing those experiences would help more with what the Army is trying to do with suicide prevention. (female officer)
3. **Further destigmatization by increasing confidentiality of care, reinforcing trust, and improving follow-up:**

a. Units have their protocol for buddy watch, but instead send them to a doctor and don't make them wait a week to see a doctor. Don't send them back to work. If you are going to send someone back to work—even with supervision—who is thinking about killing themselves, it's counterproductive. (male soldier)

b. They should make it like Equal Opportunity and Sexual Assault where there is a time limit to get things resolved and you have restricted and non-restricted reporting. Or they can dual hat someone in the Company to be a Suicide Prevention Officer and keep track of issues. (male NCO)

c. Putting someone on suicide watch can make a Soldier want to commit suicide. (male officer)

4. Improve strategic communications on resources available and steps to take when providing assistance:

a. Limit the number of programs and focus our resources on those programs. If you put a marketing campaign behind just a few of them you would be more effective. Take these 26 and get rid of 3/4s because each takes separate funding, let's take that money and focus them on fewer that would be better. (male officer)

b. People associate Chaplains with religion. I think that needs to be dispelled; soldiers need to know Chaplains are counselors. (female officer)

c. Instead of the Army spending money on ACE cards, give the digits to the units and let them add the contact numbers. (female officer)

5. Improve collaboration on and effectiveness of prevention efforts:

a. The medical treatment facility is 30 min down the road and the acute care clinic is only open until 1830. Here, battalion Psychologists do a fellowship to get operational experience and all of our Commanders who have them give phenomenal feedback. It's the easiest access to care and might be the most effective way to do things. (male officer)

b. The military doesn't know how to deal with soldiers coming back from Afghanistan; it's different than coming back from Iraq. You could see the improvement coming back from Iraq, not Afghanistan it's one million percent different. You can't throw a rock around here without hitting someone who has been to Afghan more than once and there is absolutely no improvement over there. You witness your friends being hurt and killed and our blood being shed on that soil and we get pissed off, we ask why are they sending us there, we have no faith in our government. And that messes with you. It's a different kind of mental disturbance and you lose faith in your leadership at a much higher echelon. How

do we fix that? I think it's really good to have the prior service BH people who can relate. I've had soldiers who needed help and they were much more receptive and I saw how much more they liked their counselors who were prior service. They were excited and would say "I really think this is what I needed." I can tell that it makes a difference. (female NCO)

c. When a provider says a Soldier needs to be hospitalized, we integrate the green-suiters in the decision-making. The brigade psychiatrist, battalion nurse, battalion chaplain, and brigade surgeon, convene a board to discuss and justify what the determination needs to be, getting feedback from the medical team and the command team. The board looks at it holistically and makes a decision; you get a more holistic view. It's a one-day process so it doesn't stretch out the process. With this approach we have documentation of supporting treatment and not supporting treatment. (male officer)

d. I think we need to have more fusion and synchronization and there has to be some type of relationship with the provider and the unit. We are going to end up having to put military back in psych positions and when you do that I think we will have better results. Because you have green tab to green tab and you have a better relationship. I don't think the providers feel as comfortable talking to Commanders due to the credentials. There is a lack of trust. (male officer)

6. Eliminate a mandated training day and style, but ensure units conduct interactive SP training during SP Month:

a. For suicide prevention month it should be the unit's prerogative how they conduct training. We don't have women's Stand Down Day. We are spending this amount of energy on .001 percent of the population who probably came in with issues. (female officer)

b. I wouldn't put everyone in the auditorium. If you are going to do something to address SP, you should make people happy, a day of activities to cheer people up like an Org Day. Have booths set up with different kinds of things, times where you can go to classes and learn things, where you can choose what you want to learn about. Mass training loses its impact, people get more out of small groups. In a big group you feel detached, everything is better when you individualize it. (male soldier)

c. You might want to take someone from out of the chain of command to give the class, someone they don't know from another brigade or division. (male soldier)

d. Make sure that we reduce the amount of people in the size of the class, change the instructors to key leaders. In my last unit, I took time out to make sure I instructed one of the classes. (male officer)

e. At a previous unit for training we had an uncensored skit that was realistic, it actually makes you think and it's real. More realistic training would be better. There was a set of videos that came out that were scenario type, some of them work and were ok. If you could find someone who actually thought about it or tried and failed would be more realistic. (male soldier)

7. Couple SP with Resilience training when possible:

a. We have to train soldiers to deal when someone is there and when they are not there. Because you will not always have someone around, God forbid you're on a deployment and your whole squad is killed, you have to be able to say man this sucks let me figure out my next step. (male soldier)

8. Make ASIST and MRT certification more effective and relevant

a. It costs $30 to train every ASIST. If we can indoctrinate that into the Army system and get our own product, we can do Train the Trainer, which would be more beneficial. I like the ASIST materials, but we can't afford it financially or time wise. (male officer)

b. It's those SSGs and SGTs dealing with the soldiers' issues. They give MRT to the seniors, but I believe MRT should be given to the more junior soldiers so they can fix it at the lowest level. (female NCO)

Table 7 summarizes these eight recommendations, recommended strategies garnered from system analysis and user feedback, and the possible measures of effectiveness. These recommendations result from the determination of system mismatches, explanation of the respective gaps, and the combination of the researcher's systemic conclusions with user recommendations. If implemented, the strategies used to accomplish these recommendations could further strengthen the system design and improve total system performance.

Table 7. ASPP System Recommendations, Strategies, and Measures of Effectiveness

Recommendations	Strategies	Measures of Effectiveness
1) Increase focus on protective factors and engaged leadership during training and strategic communications	**1)** Conduct an Army-wide suicide prevention needs assessment that focuses on buddy and self care equally **2)** Leverage more opportunities for innovative, morale boosting activities geared towards unit and soldier needs	**1) Responsiveness:** Response rates based on method of gathering data **2) Feedback:** Goal should be to garner qualitative and quantitative feedback from representative sample of at least 25% of all components
2) Reinforce the Army Team concept	**1)** Ensure leaders understand how risk detection and sharing experiences within units increases trust consistent with the Army Values **2)** Allow time and resources for team building activities	**1) Unit Cohesiveness:** Awareness of and caring for others should be high within a section and at least medium within a unit **2) Trust:** Low trust of leadership and of fellow Soldiers will be a barrier to care
3) Further destigmatization by increasing confidentiality of care, reinforcing trust, and improving follow-up	**1)** Hold leaders accountable for contributing to stigma **2)** Hold Soldiers are accountable for false reporting **3)** Eliminate activities that increase likelihood of stigma (such as buddy watch and showing appointment slips)	**Confidentiality:** Number of personnel who are informed a Soldier is seeking mandatory or voluntary care (lower is better)
4) Improve strategic communications on resources available and steps to take when providing assistance	**1)** Improve organization and presentation of ASPP Website **2)** Streamline the resources being funded and the media used to advertise **3)** Re-define requirement for or eliminate GAT **4)** Allow units to modify ACE cards with warning signs and unit contact information	**1) Usability:** Effectiveness of web resources based on user feedback during Usability Study **2) Applicability:** Whether resource adds value to ASPP system for the user, adds value for the command, or is a requirement that does not add value
5) Improve collaboration on and effectiveness of prevention efforts	**1)** Provide after-hours and walk-in appointments on post **2)** Increase uniformed, embedded and inpatient BH **3)** Increase awareness that Chaplains provide general counseling as well as religious support	**1) Access to Voluntary/Involuntary Care:** number of interfaces/interactions between the individual and care **2) Time:** Amount of patient wait time
6) Eliminate a mandated training day and style, but ensure units conduct interactive SP training during SP Month	**1)** Replace Stand Down Day training with small group, scenario-based discussions at the unit's discretion throughout Suicide Prevention Month **2)** Encourage creativity with training and share best practices **3)** Minimize CAC-required training	**1) Length:** Training time **2) Method:** Training media **3) Training Leader KSAs:** Rank, Experience, Duty **4) Group Size/Composition:** Number/makeup of personnel trained simultaneously **5) Transfer of Training:** Positive, Negative, or Zero **6) Overall Assessment:** Above Standard, Meets Standard, Below Standard
7) Couple SP with Resilience training when possible	Increase emphasis on taking care of self through Resilience training and use of confidential services	**Training Focus:** 1:1 Ratio between Self-Care and Buddy Care, Suicide Prevention and Life Preservation
8) Make ASIST and MRT certification more effective and relevant	**1)** Improve personnel selection **2)** Optimize training cost/time/effectiveness **3)** Facilitate unit programs as joint effort between ASIST/MRT personnel	**1) Personnel Assignments:** Ensure ASIST/MRT at BN level and above **2) Training Cost:** Based upon budgetary constraints **3) Training Statistics:** Timely and accurate within two years

Scott's research intended to determine the means and effectiveness of the U.S. Army BH System. He suggests "a rearrangement of the system architecture to enable integrated work across organizational boundaries in order to reduce waste generated through structural inefficiencies" (Scott, 2012, p. 2). Whereas Scott focused on the macro-level, the systematic approach of this study focused on the macroergonomic implications of the ASPP system at the micro-level. Similar conclusions were drawn that the Army's current system for preventing, recognizing, and treating some conditions is "highly fragmented and not suited for providing the volume of treatment required by veterans returning from combat" because some of the stakeholders lack an agreed-upon common purpose (Scott, 2012, p. 8).

Three outcomes from this research show obvious gaps in BH services that feed into the ASPP system. First, BH providers at every site analyzed stated Armed Forces Health Longitudinal Technology Application (AHLTA) as the single biggest frustration in their daily operations due to its unfriendly interface, unreliability, and limitations on data entry capabilities. Second, limitations of the DA Form 3349, Physical Profile, used to describe physical limitations due to a medical condition was reported as inadequate by providers and commanders at each site (Scott, 2012). Finally, interview responses showed an obvious and problematic mismatch between DoD Instruction 6490.08, ALARACT 160/2010, and DoD Instruction 6025.18-R56 with Health Insurance Privacy and Accountability Act (HIPAA) guidelines:

> It is in this communication that we observe the knowledge sharing policy that inhibits the much-needed flow of information between the enterprises. In thirteen interview sessions with 110 total respondents from the Chain of Command at three FORSCOM installations, there was a uniform response that personal information protection under the Health Insurance Privacy and Accountability Act (HIPAA) was held up as an impediment to successful information exchange with Behavioral Health providers. Conversely, over 75 percent of the 33 clinical providers interviewed stated that they cannot or would not share protected information with commanders due to concerns over patient privacy and fear of losing their medical license due to a HIPAA violation. This is troubling for two reasons: first, commanders are responsible for the health and welfare of their soldiers as well as mission readiness. If a provider has information that the commander needs in order to execute on these responsibilities,

> particularly if the soldier is a danger to himself or others, then that information must be shared. Second, DoD regulations and MEDCOM guidance require that this information must be shared. (Scott, 2012, pp. 56—57)

Among other recommendations, Scott encouraged the development of three shared strategic objectives for a more effective BH system within the Army. Of the three, one merits reiteration here due to the need for SP efforts to "build resilient soldiers through proactive education and skills development to mitigate self-imposed stresses" (Scott, 2012, p. 75). The recommendations presented here can be implemented at the lowest level within units, as well as across the Army as we continue to adapt the ASPP and CSF2 programs.

C. RECOMMENDATIONS FOR FUTURE RESEARCH

Caine asserts "at the individual level, suicide can be prevented readily—if there is the ability to intervene in a timely fashion before someone reaches the "edge of the cliff" (Caine, 2012, p. S5). Prevention efforts can be varied in their approach, however, prevention should be aimed at addressing the individual's need to minimize risk factors and maximize protective factors. The following sections present concepts and strategies with respect to these two needs that have been gleaned from current research. These approaches have either been or should be considered for inclusion in the ASPP system.

Suicide prevention research is being accomplished by organizations both internal and external to the military and from multiple facets of the suicide issue. This research includes epidemiology studies, such as the Army STARRS program. Going beyond epidemiological analysis, public health research views SP as a public health issue and presents findings such as "increasing evidence of sleep disturbances as warning signs for suicide and suicide-related behaviors, growing concerns related to over-prescription of opioid analgesics, [and] increased emphasis on restriction of access to firearms in those at risk for suicide" (Lineberry & O'Connor, 2012, p. 875). Prevention strategy research is vast, but increasingly popular evidence-based strategies, such as improving primary care

physician recognition, gives insight into proven means of effective prevention (Lineberry & O'Connor, 2012, p. 875). These sections are presented in no particular order, but grouped by their intended purpose.

1. Including Poor Sleep Quality as a Risk Factor

When studying the impacts of overall health and fitness on the possibility of suicidal behavior, sleep quality is a factor that should be considered. A 2010 study showed that of 1,584 patients at a community-based sleep center, 13 percent reported suicidal ideations and 4.5 percent reported levels of ideation consistent with clinical risk (Krakow, 2011). Although correlation between sleep disturbance and suicidal thoughts does not indicate causation, "it seems plausible that evidence-based treatments of sleep disorders would lower suicidal risks" (Krakow, 2011, para. 8).

A sleep disturbance is a measure of sleep interruption, with high levels of sleep disturbance being an implication of low quality sleep. Those diagnosed with sleep apnea, for example, show instances of sleep disturbance during a sleep study that are greater than the average individual. Sleep disorders may not always present themselves as obvious issues, given that many patients self-report sleeping extensive hours, not realizing the time in bed is not synonymous with time in deep stages of sleep. Within military personnel, reporting poor sleep as a health issue is generally frowned upon, due to the common perception that severe sleep issues are mainly found in overweight and diabetic patients. However, sleep specialists assert sleep issues that go untreated for prolonged periods of time are health hazards that can create biological and physiological issues. Increasingly, attention is being given to the psychological impacts of sleep issues as well. The number of soldiers with diagnosed sleep issues continues to increase.

Hyman, Ireland, Frost, & Cottrell (2012) report in 2007, "of those who completed suicide, 17.5 percent of Army and 24 percent of Air Force personnel had a history of sleep prescriptions…and through 2007, the use of sleep medications increased with the number of deployments for all services" from 6.1 percent of 82 in 2005 to 17.54 percent of 114 in 2007 (p. S144). To ignore the possible impact of sleep disturbance on suicidal events would be to misinform the population. There are simple diagnostic techniques and

informative measures that can be implemented to ensure soldiers are aware of their sleep states. Additionally, better sleep within a unit can affect the quality of work during shifts and individual cognitive processing. This is particularly important before, during, and after deployment cycles.

Ribeiro, Pease, Gutierrez, Silva, Bernert, Rudd, et al. (2012) explain the state of physiological overarousal that many suicide victims display prior to incident as a product of insomnia, with "the state of over-arousal appear[ing] to be a higher-order, underlying substrate with several manifest indicators, including various aspects of agitation and sleep disturbance" (p. 744). The research team's literature review included studies from 1975—2011, from which they were able to conclude theirs was the first cross-sectional, longitudinal study of a military population (totaling 311 soldiers) to measure sleep with relation to suicidal behavior and ideation, depression and other variables (Ribeiro et al., 2012). The noteworthy results of the study show "when baseline insomnia symptom index scores were entered as a predictor of later suicide attempt, controlling for MCMI depression and BHS hopelessness scores, an insomnia symptom index showed a significant longitudinal relationship to suicide attempts at follow-up. Neither baseline suicidal ideation nor depression performed similarly (Ribeiro et al., 2012).

2. Including Self-Awareness as a Protective Factor

An individual's ability to self-treat prior to becoming suicidal is closely related to how well he or she understands his or her coping abilities and resilience levels. Cooper (2004) recommends raising self-awareness by implementing personality tests for enlisted personnel as they are administered for officers. Cooper notes, "using the U.S. Naval Academy as an example, all Midshipmen are given various tests to help them understand their strengths and weakness, as well as general dispositions…one example is the Meyer's Briggs Type Indicator (MBTI)" (Cooper, 2004, p. 68).

The Army established the Army Resilience Training (ART) to inculcate "positive psychology" tactics developed at the University of Pennsylvania. Figure 36 shows how resilience as a discipline contributes to SP outcomes. Units are now required to assign and train MRTs and conduct Resiliency training within the unit. Once certified by the

MRT course, MRTs are able to share the skills they learn within their units. These skills not only help individuals identify their abilities, but also recognize the abilities of others, further strengthening self- and unit-awareness.

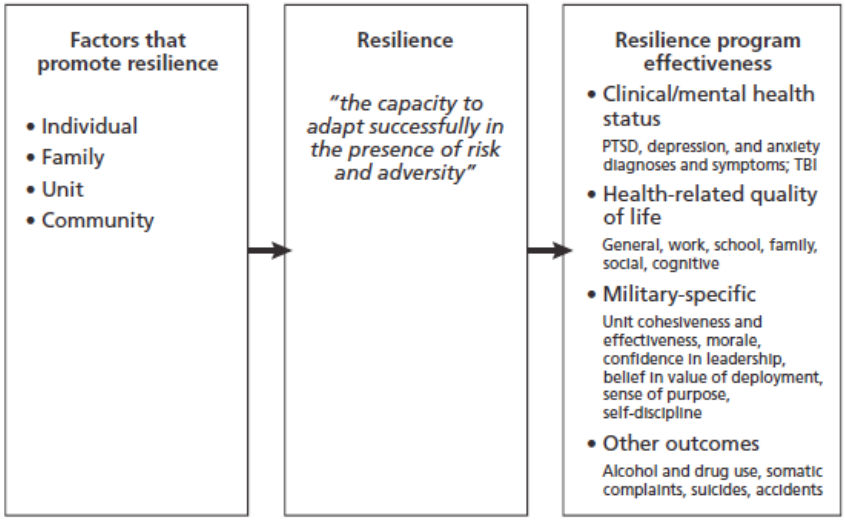

Figure 36. Organizing Framework for Promoting Resilience within the Military (From Meredith, Sherbourne, Gaillot, Hansell, Ritschard, Parker, et al., 2011, p. 8)

In a paper for the Institute of Land Warfare, Association of the United States Army, Felix asserts, "establishing a detailed self-awareness baseline, followed by emotion resilience training, can start a positive chain reaction of better-informed decisions for the Soldier at home, on the battlefield, within the highest levels of the DoD and in the quiet places within each of us" (Felix, 2011, p. 4). In a 2008 pamphlet, the Army Training and Doctrine Command (TRADOC) first defined the growing concept of the Human Dimension as encompassing the "moral, physical, and cognitive components of Soldier, leader, and organizational development and performance" (US Army TRADOC, 2008, p. ii). Combined, these efforts present a view of training that focuses on the individual's personal knowledge, skills, and abilities that are necessary for optimal performance and decision-making.

The argument can be made that increasing self-awareness will allow for better decision making abilities, especially under highly stressful operational and personal

conditions. While the Army currently requires soldiers to complete annual GATs and offers training modules under the Comprehensive Soldier Fitness (CSF) Program, there may be ways to enhance these assessments beyond the emotional, social, spiritual, and family fitness dimensions – specifically for the purposes of SP. Combining the Human Dimension and decision engineering concepts, a new approach of human dimension engineering can supplement the current ART and CSF programs, with the purpose of increasing soldiers' self-awareness so that they are able to make better, help-seeking decisions.

Two methods of increasing self-awareness that were found in the literature on military suicidality are the use of the Life Preservation Index (LPI) and Post-Traumatic Growth Inventory (PTGI). The LPI was built to propose the expansion of risk and protective factors to include family structure and functioning, religious affiliation/behavior, and organizational culture (Bah, Wilson, Fatkin, Atkisson, Brent, & Horton et al., 2011). To assess soldiers' LPI, they are tested on three indices: Personal Fulfillment and Social Support, Spirituality and Religious Practices, and Self-efficacy. The sub-items listed in Table 8 measure the indices:

Table 8. Summary of Life Preservation Index Measures (From Bah et al., 2011, p. 735)

Personal Fulfillment and Social Support
How happy is the person
How strongly they are bonded with their family
How helpful relatives would be if they had a problem
How comfortable they feel talking about feelings to relatives
How helpful friends would be if they had a problem
How comfortable they feel talking about feelings to friends
Spirituality and religious practice
Whether they believe in life after death
Whether they believe the world is basically good or bad
Attendance at religious services
Self-efficacy
Confidence in their ability to identify persons at risk of suicide
Confidence in their ability to refer the person at risk to help

In a 2011 retrospective analysis of BH clinic electronic screening responses, researchers were able to conclude the more post-traumatic growth the service members reported, the less suicidal ideation they subsequently espoused (Bush, Skopp, McCann, & Luxton, 2011). Although there were limitations to the study based on their inability to validate the results with the given population, there is enough evidence to warrant future research to determine if individual resilience mediates the impact of exposure to trauma. The goal of the PTGI is to "assesses positive outcomes reported by persons who have experienced traumatic events" (Bush et al., 2011, p. 1217). The specific measures for the PTGI are broken into five categories: new possibilities, relating to others, spiritual change, personal strength, and appreciation of life. Bridging the gap between decision science and military application will require a new field— decision engineering (Felix, 2011, p. 4). The author further recommends the incorporation of decision engineering into human dimension training.

3. Implementing Evidence-Based Approaches to Care

Evidence-based approaches are those backed by empirical research showing positive results. More simply put, a non-evidence-based strategy lacks proper proof of actually working. Jobes, Lento, and Brazaitis (2012) note current clinical approaches to suicide prevention lack effectiveness using examples such as: reduction of inpatient care due to rising healthcare costs and more stringent admission requirements, lack of mental health clinicians' basic training in suicide risk management, and the unpopular use of buddy watch. Mann (2011) asserts we must conduct systemic observational studies and evaluation of defined interventions to determine what works best. "Opinion must give way to the facts gained from studies, and then studies must set treatment and prevention procedures" (Mann, 2011, p. 123).

Jobes et al. (2012) developed the Collaborative Assessment and Management of Suicidality (CAMS), which aims to increase the collaboration between the clinician and the patient using a tool called the Suicide Status Form (SSF), decreasing possible power

struggles due to the "clinician as expert" approach. Decreasing the barrier between the patient and the healthcare provider should help increase the patient's motivation to succeed and make for a stronger treatment plan.

Current studies and clinical trials of CAMS, including implementation at two Air Force outpatient clinics, provide support for its effectiveness (Jobes et al., 2012). Figure 37 shows the differences between how long members of each treatment group remained suicidal. Despite its limitations, findings from the Air Force study that compared treatment with CAMS to treatment as usual (TAU) were:

> Prior to treatment, there were no significant differences in the medical utilization of these two groups. However, after treatment, CAMS patients had statistically significantly fewer and shorter (measured in minutes) emergency room visits, as well as fewer and shorter non-mental health appointments than did TAU patients. These findings persisted for the 6 months following study participation and represent statistically significant differences ($p = .02$). Furthermore, whereas the CAMS patients did not engage in significantly different utilization before and after treatment, the TAU patients engaged in significantly more appointments following their suicide-related mental health treatment. The participants in this study were well matched to the overall Air Force population and to the profile of individuals who are at high risk for suicide, experiencing significant distress, who are diagnosed with a mood or adjustment disorder. Patients in the CAMS treatment group resolved their suicidality more quickly and attended fewer non-mental health medical appointments than did patients receiving TAU. (Jobes et al., 2012, p. 610—612)

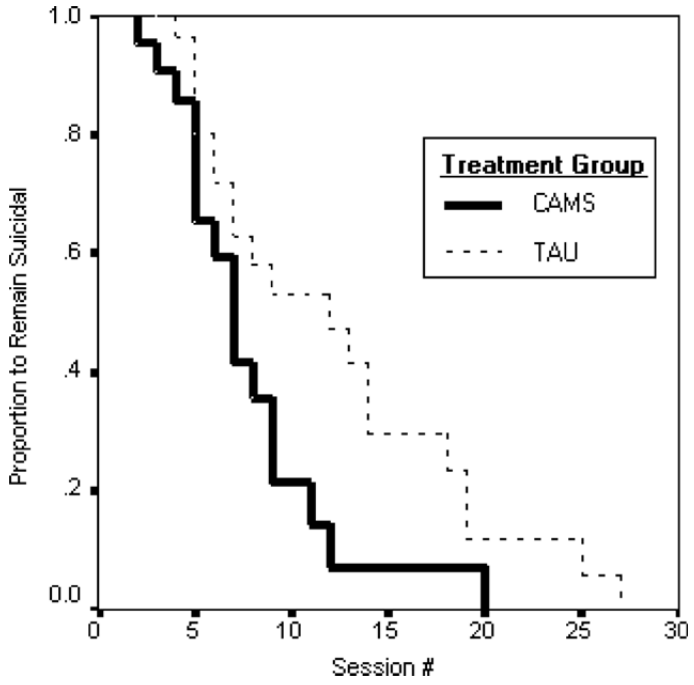

Figure 37. Estimated proportion of patients in the CAMS and TAU group to remain suicidal as a function of session number. (From Jobes et al., 2012, p. 610)

More than one peer-reviewed article cited Knox's study as the best analysis of an evidence-based approach for a military population (Bagley et al., 2010). Systematically, evidence-based methods present the best means of measuring potential and actual results of changes as they are implemented. While other approaches lack empirical validation, evidence-based strategies provide measures by which to determine effectiveness. The Army should use these types of methods in the future due to their scientific value, and ability to potentially provide cost savings over time.

4. Leveraging Lessons Learned from College-Based Suicide Prevention

Statistics show that 18 to 24 year olds who are in college are at half the risk of suicide compared to their non-student counterparts. The conclusion drawn "is that being part of a campus community is believed to have a protective effect" (Ilakkuvan, Snyder, & Wiggins, 2011, p. 3). Due to the similarities between young soldiers entering the military and young adults entering college, it is worth reviewing best practices of college campus SP efforts. "Suicide is the third leading cause of death for youths between the ages of 15 and 24 years…and is believed to be the second leading cause of death for

college students because of the low rate of homicide in this population" (Drum, Brownson, Denmark, & Smith, 2009, p. 214). Drum et al. (2009) developed a Web-based survey on suicidal thought, intent, and action that was completed by 26,000 undergraduate students from 70 colleges and universities. The tabular results of this study are in Appendix D. The research team hypothesized "an effective approach to suicide prevention cannot continue to rely entirely on individual-focused counseling services" (Drum et al., 2009, p. 214). The authors recommend a problem-focused approach in order to avoid focusing on just those students experiencing a suicidal crisis in order to address the entire continuum of suicidality (Drum et al., 2009, p. 220).

Finally, many may ask if it is even possible to solve the problem of suicides in the military. How we measure the success of the program should go beyond aiming for a decreased number of completed suicides. We will know we have made progress as an Army when there is an increase in system use, a decrease in all types of suicide events, and life preservation is discussed just as often as suicide prevention. Mastroianni and Scott (2011) argue for the reframing of the military's approach to suicide due to our current understanding of the problem being incomplete. This HSI-driven research aimed to provide a more complete assessment of the problem and current prevention strategies by leveraging the voice of intermediate managers, unit leaders, and individual soldiers. As a result, three themes proved important as measures of success for the ASPP system: engaged leadership reinforced with confidentiality and trust, increased protective factors using self- and buddy care, and an operating environment that relies on the aforementioned to eliminate the perpetuation of a stigma. A hopeful outgrowth of this effort is a tool to help unit command teams better understand their soldiers' perspective and tailor their programs to be highly effective, despite time and resource constraints.

Suicide is a personal decision. But those who have lost someone they know to suicide can attest that many left behind may feel its impact deeply and for extended periods of time. Fundamentally, the military combats this individual issue by providing a team-based prevention program and offering a myriad of services for soldiers to get help. However, despite every effort and properly taken step on the SP continuum, we must remember that this problem remains complex, and in some cases, uninfluenced by family

members, friends, co-workers, and fellow soldiers. If a reframing is to occur in how today's military should approach SP, we must continue to determine the proper balance between team roles and individual responsibilities.

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APPENDIX A. FOUNDATIONAL RECOMMENDATIONS FROM DEPARTMENT OF DEFENSE TFPS

The following full list of recommendations was taken from *The Challenge and the Promise: Strengthening the Force, Preventing Suicide, and Saving Lives,* which was authored by the DoD TFPS and published as a final report in August 2010, pages 47–49.

As the Task Force conducted its work, the members arrived at unanimous agreement that successful suicide prevention had to be structured using a public health model with defined focus areas, each containing strategies inherent to a comprehensive suicide prevention approach.

The Task Force considered 49 findings and 76 recommendations to be report worthy. In addition, the Task Force developed 13 foundational recommendations that aggregated several of the targeted recommendations. These 13 underscore success of all the recommendations. Without implementation of these critical actions, the other recommendations are destined for failure. The 13 foundational recommendations are:

1. Create a "Suicide Prevention Policy Division" at OSD within USD(P&R) to standardize policies and procedures with respect to resiliency, mental fitness, life skills, and suicide prevention. The office will provide standardization, integration of best practices, and general oversight, serve as a change agent, and establish an ongoing external review group of non-DoD experts to assess progress. Furthermore, this office will provide guidance from which the Services can design and implement their suicide prevention programs.

2. Keep suicide prevention programs in the leadership lane and hold leaders accountable at all levels for ensuring a positive command climate that promotes the well-being, total fitness, and "help seeking" of their Service Members. A significant focus on developing better tools to assist commanders in suicide prevention must be undertaken.

3. Reduce stress on the force. The pace of operations in today's military exceeds the ability of Service Members to be restored to their optimal state of readiness. There is a supply and demand mismatch that creates a cumulative negative impact on the force. Reduce stress by ensuring the quantity and quality of dwell time allows for individual restoration as the force is reconstituted over and over again. This will allow Service Members to reestablish relationships and connectedness. If necessary, either grow the size of the force to ensure additional uniformed end-strength to meet the demand or reduce the mission demand.

4. Focus efforts on Service Member well-being, total fitness (of the mind, body, and spirit), and development of life skills and resiliency to increase protective factors and decrease risk factors. This is the pinnacle of primary prevention.

5. Develop a Comprehensive Stigma Reduction Campaign Plan that attacks the issue on multiple fronts to encourage help-seeking behavior and normalizes the care of the "hidden wounds" incurred by Service Members.

6. Strengthen strategic messaging to enhance positive communications that generate the behaviors and outcomes desired rather than highlighting the negative messaging about today's challenges. The focus of messaging must migrate from speaking solely about the "tragedy" of suicide and the "actions" being taken to messages that reduces stigma, encourages help seeking, portrays concerned leadership, and inspires hope by showing that help really works.

7. Develop skills-based training in all aspects of training regarding suicide prevention. The current awareness and education efforts about suicide prevention are adequate, but skills-based training is deficient, especially among buddies, family members, first-line supervisors, clergy, and behavioral health personnel.

8. Incorporate program evaluation in all suicide prevention programs to determine the effectiveness of each program in obtaining its intended outcome.

9. Coordinate and leverage the strengths of installation and local community support services for both Active and Reserve Component Service Members. Community health and access to quality, competent services are essential to suicide prevention.

10. Ensure continuity and the management of quality behavioral healthcare, especially while in transition periods, to facilitate a seamless transfer of awareness, management, and treatment as Service Members change locations. Transitions must be actively managed; and tools must be developed to actively manage them.

11. Mature and expand the DoDSER to serve as the main surveillance method to inform future suicide prevention efforts. Further standardize data collection processes. Robust surveillance will produce data that allows us to anticipate and avoid future occurrences of that event before the individual or population (or unit) reaches a crisis point.

12. Standardize suicide investigations and expand their focus to learn about the last hours, days, and weeks preceding a suicide or attempted suicide. Pattern suicide investigations on aviation accident safety investigation procedures and use the safety investigation process as a model to develop a standardized suicide investigation process.

13. Support and fund ongoing DoD suicide prevention research to enhance our knowledge and inform future suicide prevention efforts, and to incorporate evidenced-based solutions. Focused research in suicide prevention for Service Members is essential to identifying best practices, decreasing variation in prevention practices, and in achieving desired outcomes.

Considerable effort has been expended by DoD, the Services, and innumerable caring and dedicated individuals across the world in support of Service Members and their families. The findings and recommendations herein are intended to guide DoD in its efforts to enhance the work already being done while ensuring a more fit and ready force for meeting the demands of serving in the military. It is the Task Force's belief that implementation of the recommendations and strategic initiatives in this report will save lives and will further propel DoD as a national leader in suicide prevention.

APPENDIX B. ASPP SYSTEM HIERARCHICAL TASK ANALYSIS

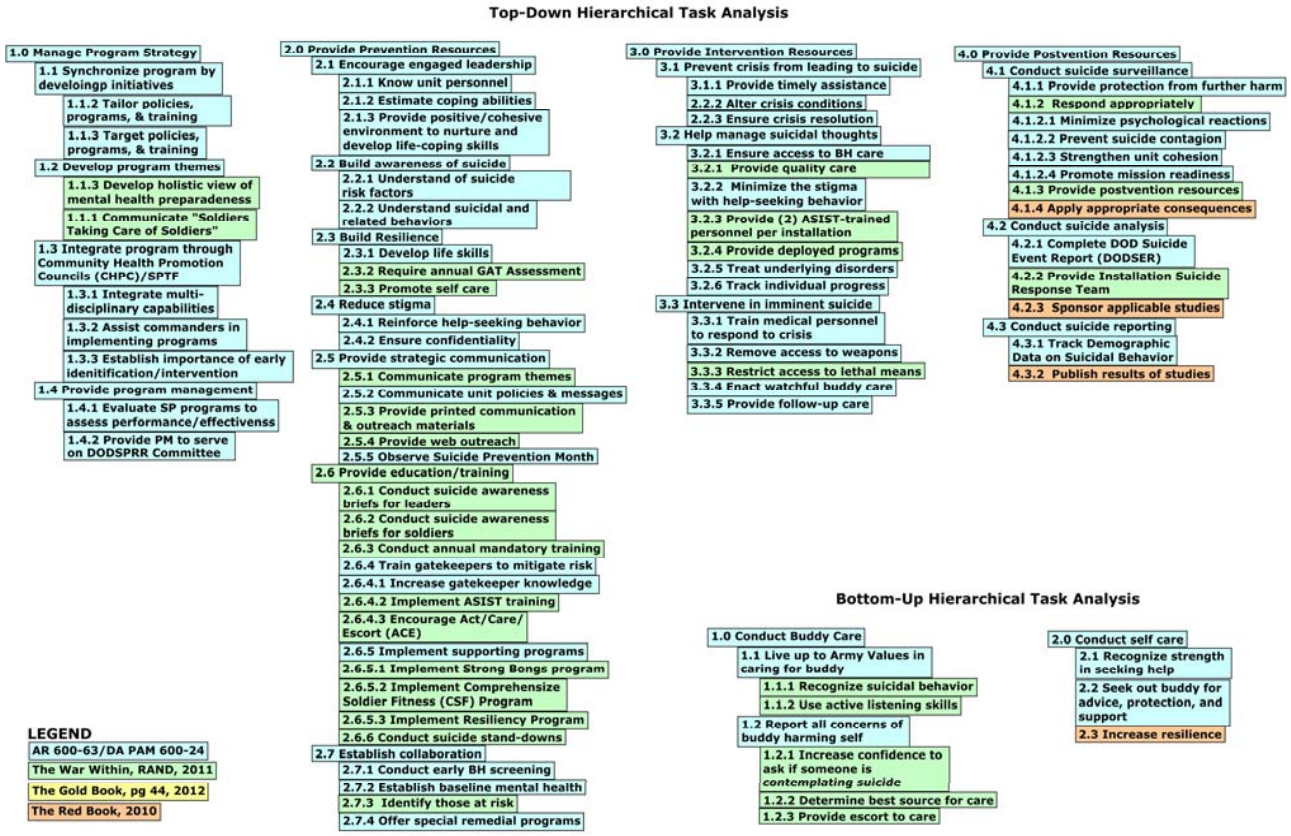

Figure 38. ASPP System Top-Down and Bottom-Up HTA

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APPENDIX C. SUICIDE RISK FACTORS FOR MILITARY POPULATIONS

Table 9. Sociocultural and Military Risk Factors Associated with Suicides of Army Soldiers (From Black et al., 2011, p. 440)

	2001–2009		*ARMY*		*Mortality Rate*	*Risk*
Risk Factor	*N*	*%*	*N*	*%*	*Per 100,000*	*Relative*
Sociocultural Risk Factors						
Gender						
Women	47	5.4	897,204	20.5	5.24	*RG*
Men	827	94.6	3,479,400	79.5	23.77	4.54*
Average age[a]	28			25*		
Aged 18–24	392	44.8	2,118,276	48.4	18.51	*RG*
Aged 25–34	310	35.5	1,518,682	34.7	20.41	1.10
Aged 35–60	172	19.7	739,646	16.9	23.30	1.26
Race/ethnicity						
Caucasian/White	655	74.9	3,168,661	72.4	20.67	*RG*
African American	110	12.6	774,659	17.7	14.20	0.69*
Hispanic and other	109	12.5	433,284	9.9	25.16	1.22
Marital status						
Single	406	46.5	2,026,368	46.3	20.04	*RG*
Married	411	47	2,070,134	47.3	19.85	0.99
Div./sep./widowed	57	6.5	280,103	6.4	20.35	1.02
Military Risk Factors						
Rank						
E1-E4	502	57.4	2,538,430	58.0	19.78	0.98
E5-E9	290	33.2	1,413,643	32.3	20.51	1.01
O1-O3/W1-W3	51	5.8	271,349	6.2	18.79	0.93
O4-O9/W4-W5	31	3.6	153,181	3.5	20.24	*RG*
Component						
Active duty	732	83.8	3,571,309	81.6	20.50	1.16
Reserve/National Guard	142	16.2	805,295	18.4	17.63	*RG*
Deployment status						
Never deployed	311	35.6	1,798,784	41.1	17.29	*RG*
Ever deployed	563	64.4	2,577,820	58.9	21.84	1.26*

Note. (RG) = Reference Group. (a) $t = 1964.7$, $p < .001$. (*) $p < .001$.

Table 10. Psychological Risk Factors Associated with Suicides of Army Soldiers (From Black et al., 2011, p. 442)

			y				
Psychological Risk Factor	*N*	*%*	*N*	*%*	*Rate Per 100,000*	*Relative Risk*	*95% CI*
Mental health status							
No MH disorder	469	53.7	369,7674	84.5	12.7	*RG*	
Any MH disorder	405	46.3	678,930	15.5	59.7	4.70	4.12–5.37
More than one MH disorder	270	30.6	—	—	—	—	—
Mental health care							
Inpatient care for MH	142	16.2	56,483	1.3	251.4	19.82	16.43–23.91
Outpatient care for MH	400	45.8	678,511	15.5	59.0	4.65	4.17–5.31
Any mood disorder	177	20.3	178,068	4.1	99.4	7.84	6.59–9.32
Major depressive disorder	77	8.8	50,359	1.2	152.9	12.05	9.47–15.34
Bipolar disorder	26	3.0	1,4372	0.3	180.9	14.26	9.61–21.16
Dysthymia	44	5.0	2,4323	0.6	180.9	14.26	10.47–19.40
Depressive disorder NOS	132	15.1	8,2810	1.9	159.4	12.57	10.36–15.24
Other mood disorder	16	1.8	6,911	0.2	231.5	18.25	11.30–30.03
Adjustment disorder	222	25.4	196,634	4.5	112.9	8.90	7.59–10.44
Anxiety-related disorders							
Any anxiety disorder–excluding PTSD	115	13.2	61,596	1.4	186.7	14.72	12.01–18.05
Post-traumatic stress disorder	62	7.1	38,774	0.9	159.9	12.61	9.68–16.43
Acute stress disorder	28	3.2	20,618	0.5	135.8	10.71	7.31–15.67
Personality disorders	52	5.9	14,933	0.3	348.2	27.45	20.63–36.55
Schiz./paranoid disorders	22	2.5	2,637	0.1	834.3	65.78	42.97–100.70
Substance-related disorders	152	17.4	165,217	3.8	92.0	7.25	6.04–8.71
Previous suicide attempt[a]	40	4.6	—	—	—	—	—
Previous ideation[b]	35	4.0	—	—	—	—	—

Note. (RG) = Reference Group. (—) = rate not available. (a) Based on ICD-9 E Codes. (b) Based on ICD-V Codes.

Table 11. Event Characteristics and Stressors Associated with Suicides of Army Soldiers 2004-2009 (From Black et al., 2011, pp. 444-445)

Characteristic and Stressor	*N*	*%*
Event characteristic		
Planning & communication		
Evidence of planning	213	38.2
Communicated thoughts prior to event	117	21.0
Historical factors		
History of self-injury	59	10.6
Contributing factors prior to service	174	31.2
Alcohol & drug use		
Event involved alcohol	110	19.8
Event involved drugs	45	8.1
Suicide prevention training (2007–2009)	92	16.5
Event was deployment related	104	18.7
Pre-deployment	11	2.0
Current deployment	70	12.6
Post-deployment	23	4.1
Environmental stressor		
Legal history	170	30.5
Article 15	75	13.5
Courts martial	16	2.9
Admin separation	31	5.6
Medical Board	27	4.9
Non-selection	17	3.2
AWOL	31	5.6
Civil legal problems	63	11.3
Personal stressor	440	79.0
Relationship problem	283	50.8
Physical health problem	101	18.1
Family/spouse health problem	25	4.5
Spousal/family/friend death	65	11.7
Spousal/family/friend suicide	22	4.0
Financial stress	47	8.4
Military/work stress	257	46.1
Victim of abuse	64	11.5
Perpetrator of abuse	55	9.9
Family Advocacy Program use	35	6.3
Substance Abuse Services use	88	15.8
Any environmental stressor	465	83.5
1–2 stressors	132	23.7
3–4 stressors	129	23.2
5–7 stressors	126	22.6
8+ stressors	78	14.0
Stress-load* any	500	89.8
1–2	144	25.8
3–4	133	23.9
5–7	134	24.1
8+	89	16.0
Average stress-load	5	

Note. N=557. (*) = Total of environmental stressors and mental health disorders.

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APPENDIX D. RISK FACTORS FOR COLLEGE POPULATIONS

Table 12. Important Factors in Preventing a Suicide Attempt (From Drum et al., 2009, p. 219)

Answered by ideators who had not attempted suicide in the past 12 months	Undergraduates (%)	Graduate students (%)
Disappointing/hurting my family	77	77
Disappointing/hurting my friends	56	49
Hope/plans for the future	42	35
Wanting to finish school	39	32
Support of my friends	38	28
Support of my family	35	33
Disappointing/hurting my partner	34	46
Religious/moral beliefs	34	33
Support of my partner	26	28
My pet(s)	19	20
Relationship with mental health professional	10	14

Note. For undergraduates, $n = 761$; for graduate students, $n = 370$.

Table 13. Suicidal Plans and Preparations (From Drum et al., 2009, p. 216)

Answered by those who have seriously considered attempting suicide in past 12 months	Undergraduates (%)	Graduate students (%)
Plans		
Never considered how to attempt	8	10
Thought about some ways, but not seriously	54	55
Had a specific plan	38	35
Preparations		
Gathered material to kill self	19	15
Began to attempt, then reconsidered	17	10
Wrote suicide note	14	7
Did practice run of suicide attempt	5	4

Note. For undergraduates, $n = 910$; for graduate students, $n = 411$.

Table 14. Events Rated as Having a Large Impact on Seriously Considering Suicide in the Last 12 Months (From Drum et al., 2009, p. 218)

Answered by those who had seriously considered attempting suicide in past 12 months	Undergraduates (%)	Graduate students (%)
Emotional/physical pain	65	65
Romantic relationship problems	59	53
Impact of wanting to end my life	49	47
School problems	43	45
Friend problems	43	28
Family problems	42	34
Financial problems	31	34
Showing others the extent of my pain	30	27
Punishing others	14	8
Alcohol/drug problems	10	6
Sexual assault	8	6
Relationship violence	6	6

Note. For undergraduates, $n = 910$; for graduate students, $n = 411$.

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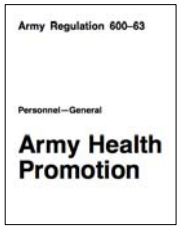
APPENDIX E. INTERVIEW QUESTIONS

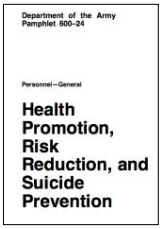
1) The following are examples of Suicide Prevention Resources. Please answer the following questions for each.

	How familiar are you with each item? A: Never seen it or used it B: Have seen it, but don't use it C: Have seen it and use it D: I don't know/I don't remember	***If you selected C on the previous question, how useful was it?*** 1: Not useful at all 2: Not useful 3: Neither useful, nor not useful 4: Useful 5: Extremely useful 6: I don't know/I don't remember
1: “Suicide Awareness Guide for Leaders” Flipbook		
2: “A Leader’s Guide to Suicide Prevention” Pamphlet		
3: “ACE” Card		
4: "Suicide Prevention Month" Poster		
5: “Don’t Deal with a Problem Alone” Poster		
6: “Shoulder to Shoulder” Video		
7: “The Home Front” Video		
8: “Soldier Leader Risk Reduction Tool”		
9: “Global Assessment Tool”		
10. Army Regulation 600-63		
11. Department of the Army Pamphlet 600-24		
12: “Army Leader Book” Mobile Application		
13: “The Soldier’s Blue Book” Mobile Application		
14: “Army Red Book” Report		
15: “Army Gold Book” Report		
16: “Military One Source” Program		
17: “Got Your Six” Program		
18: “Make the Connection” Program		
19: “National Suicide Prevention Lifeline” Program		
20: TRICARE Mental Health Resource Center		
21: Community Resource Guides		
22: “Coaching into Care” Program		
23: “Military Crisis Line” Program		
24: “Ready and Resilient” Campaign		
25: "Comprehensive Soldier Fitness" Program		
26: Army Suicide Prevention Website		

10. Army Regulation 600-63



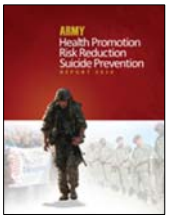
11. Department of the Army Pamphlet 600-24



12: "Army Leader Book" Application

13: "The Soldier's Blue Book" Application

14: "Army Red Book" Report



15: "Army Gold Book" Report

16: "Military One Source" Program

17: "Got Your Six" Program

18: "Make the Connection" Program

19: "National Suicide Prevention Lifeline" Program

20: TRICARE Mental Health Resource Center

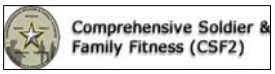
21: Community Resource Guides

22: “Coaching into Care” Program

23: “Military Crisis Line” Program

24: “Ready and Resilient” Campaign

25: “Comprehensive Soldier & Family Fitness” Program



2) Rate how helpful you think the following are for soldiers seeking help for suicidal thoughts (check one for each):

	Extremely Unhelpful	Unhelpful	Neither helpful, nor	Helpful	Extremely Helpful	No Opinion
1. Spouse						
2. Other family member						
3. Friend						
4. Army Behavioral Health Provider						
5. Chaplain/Church						
6. Supervisor						
7. External Resource (such as Army						
8. Unit NCO/Officer who is ASIST						
9. Unit NCO/Officer who is MRT Trained						
10. Other (write in):						

3) Please select which of the following you prefer for Suicide Prevention Training (check one in each category):

TRAINING MEDIA (select one)	
Powerpoint	
Online	
Video	
Discussion	
I don't like any of these styles	
Other (write in):	

TRAINING SIZE (select one)	
Entire Battalion	
Entire Company	
Platoon	
Squad/Section	
One-on-One	
I don't like any of the sizes	
Other (write in):	

TRAINING LEADER (select one)	
Senior Officer (MAJ or higher)	
Senior NCO (SFC or higher)	
Sergeant	
Chaplain	
I don't know	
Other (write in):	

INTERVIEW QUESTIONS	ANSWER BINS
1. How confident are you that you can recognize a Soldier/buddy needs help in order to prevent a suicide?	Very confident
	Confident
	Somewhat confident
	Not confident
	Other
	I don't know
2. How confident are you that you will intervene if a Soldier/buddy needs help?	Very confident
	Confident
	Somewhat confident
	Not confident
	Other
	I don't know
3. Should suicide prevention training focus more on buddy care, more on self care, or an equal amount of both?	More buddy
	More self
	50/50
	Other
	I don’t know
4. There are four categories of Soldier needs for suicide prevention. Please line them up left to right in order of importance to you.	Engaged Leadership
	Reduction of Risks
	Increased Protection
	Active Buddy Care
5. What is your assessment of Suicide Prevention Stand Downs?	Exceeds Standard
	Meets Standard
	Meets Standard, but could be better
	Below Standard
	Other
	I don't know
6. What do you think is the main reason suicide events are not detected early? A suicide event can be a thought, behavior, plan, attempt, or completion.	Signs not recognizable
	Soldiers don't ask for help
	Other Soldiers don’t offer help
	Lack of leader involvement
	Other
	I don't know
7. Is there a stigma associated with seeking help?	Yes
	No
	Other
	I don't know
8. If you needed to refer a Soldier for help, would you know who in your unit is certified in a) ASIST? b) MRT?	Both MRT & ASIST
	Only MRT
	Only ASIST
	Neither
9. Once a Soldier says he/she is suicidal or a buddy identifies he/she is suicidal, what do you think are the steps taken to get them help the way the system is set up now. Is this process effective or could it be improved?	Process effective
	Process could be improved
	Other
	I don't know
10. What is the best part about the suicide prevention program? Some examples could be unit training, individual training, number of resources available, confidentiality, etc.	Training
	Resources available
	Confidentiality
	Leadership engagement
	Encouraging buddy engagement
	Overall awareness
	Other
	I don't know
11. What is the part of the program that needs the most improvement? Some examples could be unit training, individual training, number of resources available, confidentiality, etc.	Training
	Resources available
	Confidentiality
	Leadership engagement
	Encouraging buddy engagement
	Overall awareness
	Other
	I don't know
12. Is there a resource that you or someone you know has used that helped prevent a suicide?	Open-ended
13. Do you have any additional comments?	Open-ended

Cards Used for Question 4:

RISK REDUCTION
Chronic Pain, Guilt, Anger, Shame, Burdensomeness, PTS/PTSD Adjustment Disorder, Stigma, Exposure to Trauma, Impact of Transition Periods, Legal/Discipline Problems, etc.

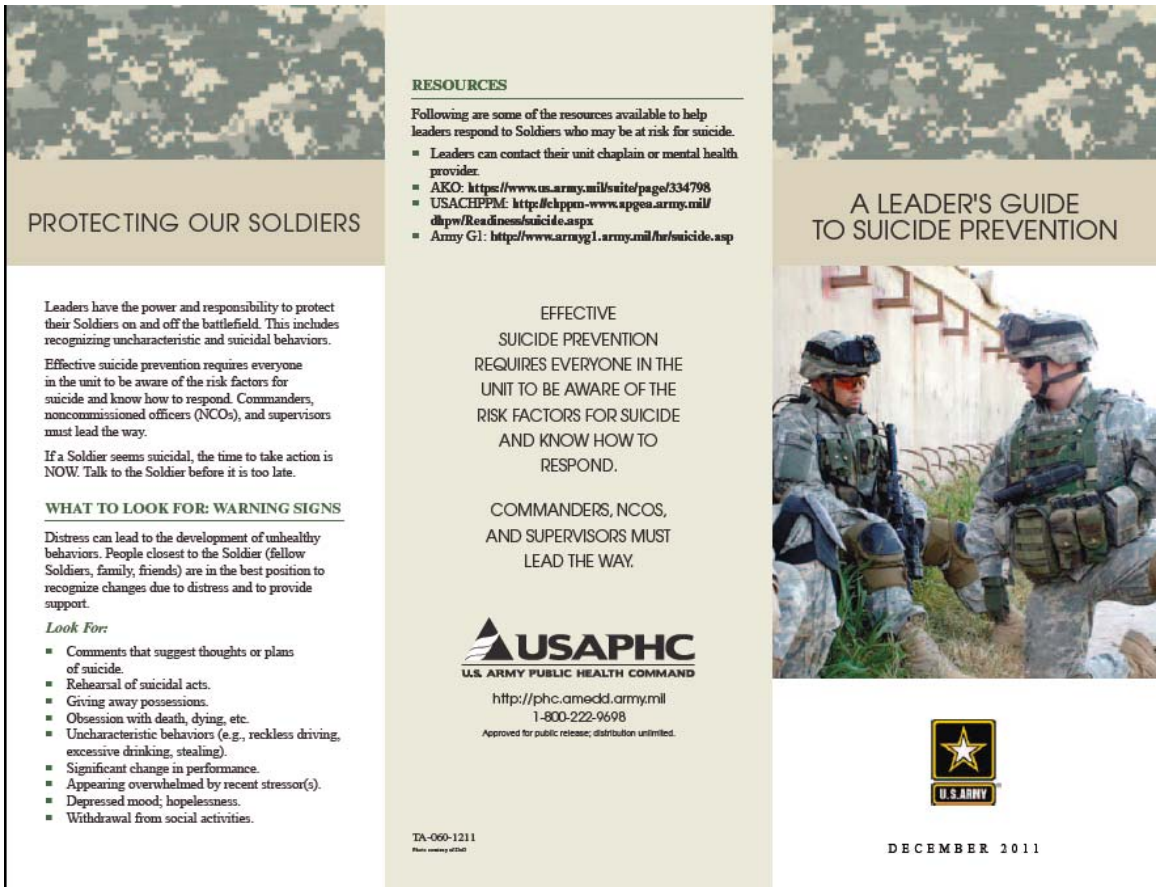
INCREASED PROTECTION
Total Fitness, Resilience, Sprituality, Sense of Purpose, Respect, Connectedness, Belongingness, Supportive Family Loving Relationships, etc.

BUDDY CARE
Peer Support Groups, Buddies who Ask/Care/Escort if you need help, Confidentiality, Trust

ENGAGED LEADERSHIP
Leaders who know their personnel, Leaders who estimate coping skills, Positive Command Climate, Cohesive Unit, Confidentiality, Trust, Reduced Stigma

APPENDIX F. ARMY SUICIDE PREVENTION LEADER'S GUIDE

This pamphlet was provided to the researcher by the SPPM and offered to participants at the conclusion of each interview (From U.S. Army Public Health Command, 2010).



PROTECTING OUR SOLDIERS

Leaders have the power and responsibility to protect their Soldiers on and off the battlefield. This includes recognizing uncharacteristic and suicidal behaviors.

Effective suicide prevention requires everyone in the unit to be aware of the risk factors for suicide and know how to respond. Commanders, noncommissioned officers (NCOs), and supervisors must lead the way.

If a Soldier seems suicidal, the time to take action is NOW. Talk to the Soldier before it is too late.

WHAT TO LOOK FOR: WARNING SIGNS

Distress can lead to the development of unhealthy behaviors. People closest to the Soldier (fellow Soldiers, family, friends) are in the best position to recognize changes due to distress and to provide support.

Look For:

- Comments that suggest thoughts or plans of suicide.
- Rehearsal of suicidal acts.
- Giving away possessions.
- Obsession with death, dying, etc.
- Uncharacteristic behaviors (e.g., reckless driving, excessive drinking, stealing).
- Significant change in performance.
- Appearing overwhelmed by recent stressor(s).
- Depressed mood; hopelessness.
- Withdrawal from social activities.

RESOURCES

Following are some of the resources available to help leaders respond to Soldiers who may be at risk for suicide.

- Leaders can contact their unit chaplain or mental health provider.
- AKO: https://www.us.army.mil/suite/page/334798
- USACHPPM: http://chppm-www.apgea.army.mil/dhpw/Readiness/suicide.aspx
- Army G1: http://www.armyg1.army.mil/hr/suicide.asp

EFFECTIVE SUICIDE PREVENTION REQUIRES EVERYONE IN THE UNIT TO BE AWARE OF THE RISK FACTORS FOR SUICIDE AND KNOW HOW TO RESPOND.

COMMANDERS, NCOS, AND SUPERVISORS MUST LEAD THE WAY.

USAPHC
U.S. ARMY PUBLIC HEALTH COMMAND

http://phc.amedd.army.mil
1-800-222-9698

Approved for public release; distribution unlimited.

TA-060-1211

A LEADER'S GUIDE TO SUICIDE PREVENTION

U.S.ARMY

DECEMBER 2011

WHAT TO DO

It is best for mental health or medical professionals to assess and manage suicidal Soldiers, but there may be times when unit leaders or peers find themselves on the phone with a suicidal Soldier. In any situation, if a Soldier threatens suicide, take him very seriously. You may have very limited time and only one chance to intervene. The most important thing to do is take action.

By Phone:

- Establish a helping relationship (get your foot in the door).
- Quickly express that you are glad the Soldier called.
- Immediately get the telephone number that he is calling from in case you are disconnected.
- Find out where the Soldier is located.
- Get as much information as possible about the Soldier's plans, access to means of self-harm, and intent.
- Listen and do not give advice.
- Keep the Soldier talking as long as possible until help can reach him but avoid topics that agitate him (i.e., his unfair supervisor, cheating spouse, etc.).
- Follow up and ensure the Soldier is evaluated.

In Person:

- Find out what is going on with the Soldier.
- Use open-ended questions such as: "How are things going?" or "How are you dealing with…?"
- Share concern for his well-being.
- Be honest and direct.
- Listen to words and emotions.
- Repeat what he says using his words.
- Ask directly about his intent, i.e., "Are you thinking about suicide?" This will not put new ideas in his head.
- Keep the Soldier safe—DO NOT leave him alone; have a capable Soldier with him at ALL times. Take steps to remove potential means of self-harm including firearms, pills, knives, and ropes.
- Involve security if the Soldier is agitated or combative.
- The command should escort the Soldier to the military treatment facility (MTF) or civilian emergency room (ER) if the MTF is unavailable.
- Follow up and verify that the Soldier was evaluated.
- If psychiatric hospitalization is required, talk to the MTF staff about what assistance is needed (e.g., arranging for necessary belongings, child care, or pet care).
- Monitor the Soldier until you are convinced the Soldier is no longer at risk.
- The Soldier may be so intent on suicide that he becomes dangerous to those attempting to help him. Talk to a mental health provider for advice on whether to call an ambulance or transport him yourself. If the advice is to transport him in your vehicle, a person must sit at each door to prevent the suicidal Soldier from exiting the moving vehicle. Have your appointed contact person give the mental health provider the unit commander's telephone number for feedback following the evaluation. During duty hours, contact your MTF. After duty hours, contact the post or civilian ER. Mental health evaluations must be conducted in a location where medical support and security are available. If there is not an ER on post, the MTF duty crew will handle suicide risk assessments using the local community medical or mental health facilities.

WHAT TO AVOID

Leaders should let their Soldiers know they are safe and in good hands if they ask for help.

- Do NOT minimize the problem. Do NOT ask, "Is that all?"
- Do NOT overreact to the problem.
- Do NOT create a stigma about seeking mental health treatment.
- Do NOT give simplistic advice such as, "All you have to do is…"
- Do NOT tell the Soldier to "suck it up," or "get over it."
- Do NOT make the problem a source of unit gossip. Involve others on a need-to-know basis.
- Do NOT delay a necessary referral.

TROUBLESHOOTING

Possible Scenarios:

- *The Soldier refuses voluntary evaluation for suicide risk:* Contact your local MTF for advice. In general, consent is not required to transport the suicidal Soldier to the MTF or ER.
- *The Soldier is found to be at some risk but not hospitalized:* Work with the medical staff on the best course of action. Upon return to the command, the medical staff should:
  - Communicate the current level of risk.
  - Recommend protective measures and monitoring, if any.
  - Provide administrative recommendations (duty status, suitability, separation, and retention).
  - Schedule medical follow-up appointments.
- *Treatment is offered, but the Soldier refuses treatment:* Soldiers not at imminent risk cannot be mandated to receive medical or mental health treatment. Leaders and mental health providers must collaborate to maximize the Soldier's safety. Upon return to the command, the medical staff should:
  - Communicate the current level of risk.
  - Provide advice on protective measures and monitoring, if any.
  - Recommend any administrative restrictions (duty status, separation/retention).
  - Schedule medical follow-up appointments.
  - Provide a course of action if the Soldier's risk of self-harm increases or does not improve.
- *The Soldier is treated but is not getting better:* Work closely with the medical staff on the best course of action. Medical staff may:
  - Have other treatment approaches available (different medications or therapies).
  - Recommend changing the Soldier to limited duty status to receive additional treatment.
  - Recommend administrative actions or medical retirement in cases where long-term improvement is unlikely with any reasonable treatment.

As a leader, you have the power to make a difference, to save a life, and to set a positive example.

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